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ABSTRACT

Compiled are abstracts and indexes to selected print and non-print materials; related to wastewater treatment and water quality education and instruction, as well as materials related to pesticides, hazardous wastes, and public participation. Sources of abstracted/indexed materials include all levels of government, private concerns, and educational institutions. Title, author(s), publication date, cross-references, descriptors, and availability are provided for each entry. Also included are procedures to illustrate how instructors and curriculum developers in the water quality control field can locate instructional materials to meet very general or highly specific requirements of their programs. This publication supplements and does not replace "Water Quality Instructional Resources Information System (IRIS): A Compilation of Abstracts to Water Quality and Water Resources Materials" or IRIS Supplements I-VII. (Author/JN).

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Water

Water Quality Instructional Resources Information System

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NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

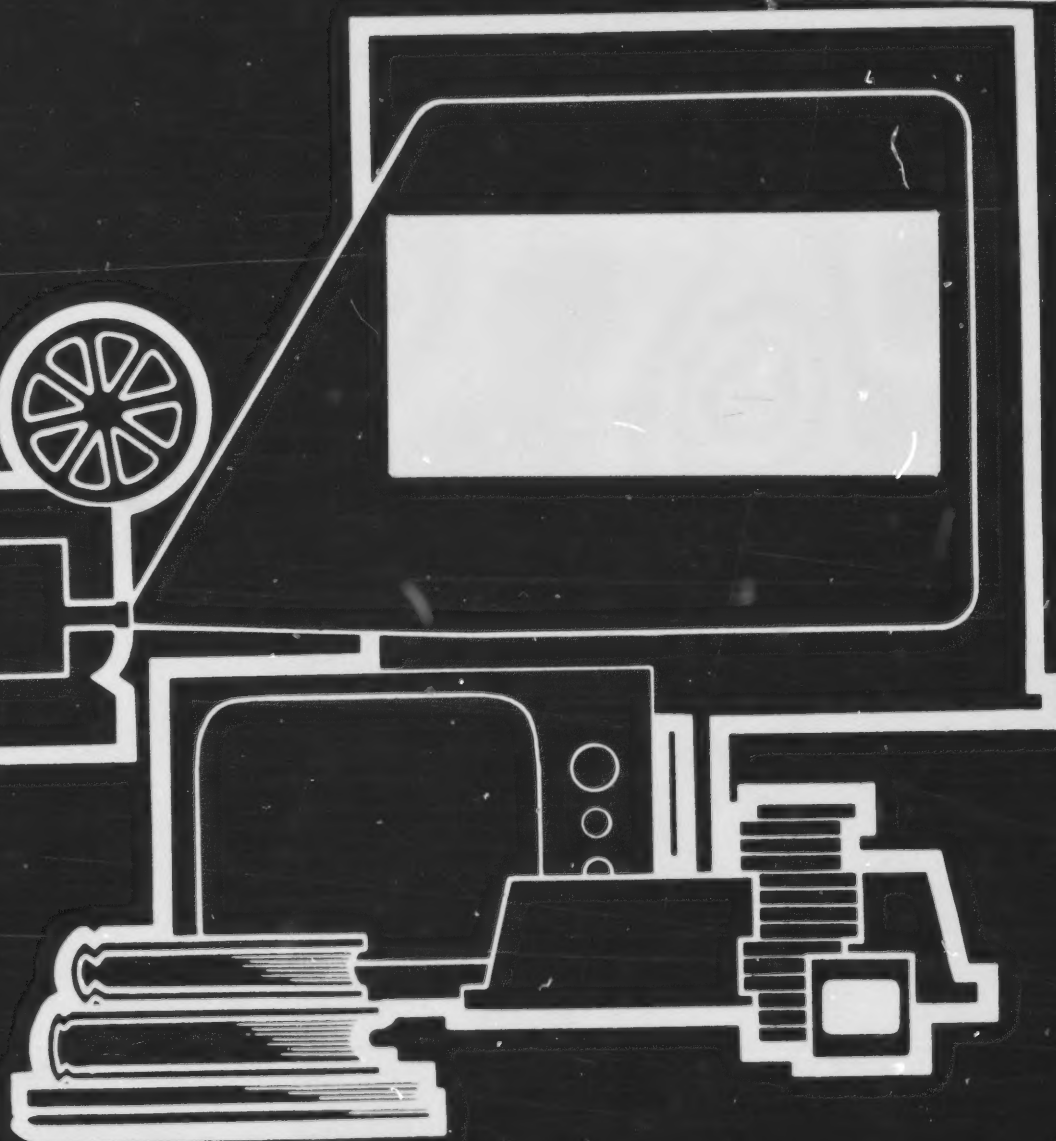
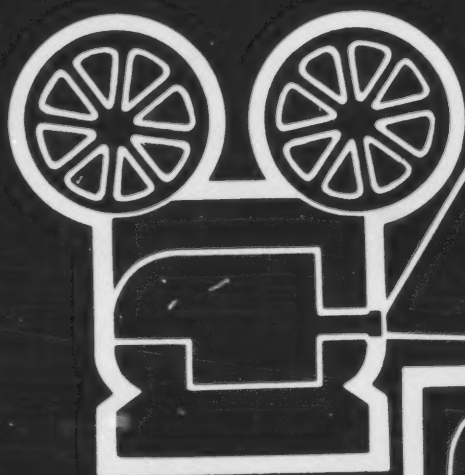
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1200 Chambers Road - 3rd Floor
Columbus, Ohio 43212

as part of
Grant No. T-901366010

WATER QUALITY INSTRUCTIONAL
RESOURCES INFORMATION SYSTEM (IRIS)

A Compilation of Abstracts
to Water Quality and Water
Resources Materials

Supplement VIII (1981)
December, 1981

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TABLE OF CONTENTS

<u>Topic</u>	<u>Page</u>
Preface	
I. General Information about Materials in IRIS	1
A. What Types of Materials are Included in IRIS.	1
B. How are Materials Entered in IRIS	1
C. How Can a User Locate Materials in IRIS	1
1. All Materials Placed in IRIS (Water) Collection . . .	1
2. Materials Placed in the Educational Resources Information System (ERIC).	3
II. How to Use the Compilation.	4
A. Description of Information in Resumes	4
B. How to Locate Desired Materials	8
1. Subject Index	8
2. Author Index.	8
III. Correcting an Existing IRIS Record.	9
IV. Requests to Receive Information about IRIS and the <u>IRC Bulletin</u>	9
V. Requests for Assistance in Using IRIS	9
VI. How to Locate Other Relevant Educational Materials.	10
VII. How to Structure a Computer Search of IRIS.	16
VIII. How to Order Materials.	19
IX. Resume Section.	21
X. Author Index.	123
XI. Subject Index	129

Preface

This publication contains abstracts and indexes to selected materials related to wastewater treatment and water quality education and instruction. In addition, some materials related to pesticides, hazardous wastes, and public participation are included. Also included are procedures to illustrate how instructors and curriculum developers in the water quality control field can locate instructional materials to meet very general or highly specific requirements in their programs.

Supplements to this publication will be issued periodically.

For further information about these materials contact:

EPA Instructional Resources Center
1200 Chambers Road, Room 310
Columbus, Ohio 43212

Telephone: (614) 422-6717

I. General Information about Materials in IRIS.

A. What types of materials are included in IRIS?

The EPA Instructional Resources Center (water) acquires, reviews, indexes, and announces both print (books, modules, units, etc.) and non-print (films, slides, video tapes, etc.) materials related to water quality and water resources education and instruction.

Materials selected must be available from some source for announcement. When materials are not readily available we attempt to make the materials available through some national information service for easier acquisition. In a few cases the EPA Instructional Resources Center is the source of the materials.

B. How are materials entered into IRIS?

We request that people assist us in locating materials for the system. If you have materials you believe to be useful to others, please send two copies if possible to the:

EPA Instructional Resources Center
1200 Chambers Road, Room 310
Columbus, Ohio 43212

Materials are reviewed by the project staff. Availability of the materials is checked, and the materials are abstracted and indexed. The abstract describes the contents of the material. The index terms (descriptors) are concepts or terms used to describe the contents and the form of the document. (See the Subject Index for a listing of those that have been used.) The index terms are useful for locating materials manually, such as with this compilation, and also by computer.

When items are processed they are entered on the IRIS (water) computer tape. This tape is maintained by the EPA Instructional Resources Center at The Ohio State University and is used for producing tapes for other information systems, publications, and for computer searches conducted at The Ohio State University.

C. How can a user locate materials in IRIS?

1. All materials placed in IRIS (water) Collection.

Materials entered into the IRIS (water) collection can be located in two ways: (1) by manual search of this compilation and similar ones to follow and (2) by computer.

The first compilation contained resumes of selected materials processed for the previous IRIS (water) collection and resumes of selected materials of items added to the IRIS (water) collection. A limited number of copies of the compilation in paper copy and microfiche are available free of charge as long as the supply lasts from the EPA Instructional Resources Center. After the free copies of the compilations are gone, copies will be available for purchase from the EPA Instructional Resources Center.

Quarterly updates of the compilation are available by subscription on a yearly basis beginning November, 1979. Information regarding an annual subscription to IRIS (water) Quarterly Compilations can be obtained by writing to the EPA Instructional Resources Center. A subscription to the quarterly supplements for 1980-81 is \$12.00 (within the U.S.). Price to Canada is \$14.00. Prices in other Countries is \$20.00. Separate quarterly supplements are \$4.00 each.

The compilation and the quarterly supplements can be scanned and the subject index can be used for manual searches.

Computer tapes of the IRIS (water) collection can also be searched by both batch and on-line computer searches. The IRIS tapes are available for searching through the Bibliographic Retrieval Services, Inc., (BRS) and with Dialog. Any search service that currently subscribes to BRS or Dialog is able to search the IRIS data base by on-line techniques. Individuals or agencies with computer terminals and telephone connection equipment can subscribe to BRS or Dialog and do their own searches if they desire.

Information regarding BRS may be obtained by writing or phoning BRS, Corporation Park, Building 702, Scotia, NY 12302, (518) 374-5011.

Information regarding Dialog may be obtained by writing or phoning Dialog Information Retrieval Service, 3460 Hillview Avenue, Palo Alto, CA 94304, (415) 858-3775.

Plans are being made to mount IRIS tapes with other on-line vendors. Information regarding this service will be announced in a future EPA IRC Bulletin and in mailings from the EPA Instructional Resources Center.

2. Materials placed in the Educational Resources Information System (ERIC)

A number of the materials processed for the IRIS (water) system are entered into the ERIC system and announced in Resources in Education (RIE). Resources in Education (RIE) is published monthly and is available from:

Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402
(202) 783-3238

The current price is listed in the most recent issue of RIE. Check if a college or university library close to you has a copy. If they do not, contact the EPA Instructional Resources Center for assistance.

Many libraries subscribe to RIE. Materials announced in RIE can be searched manually each month by scanning RIE or by checking the index terms in the back of each issue. Materials announced in RIE can be searched by computer also. ERIC computer tapes may be purchased outright, but most users of the tapes gain access to them through three major database vendors, Dialog, Systems Development Corporation (Orbit), and Bibliographic Retrieval Services. For the addresses of search services in your state that can search these databases, contact the:

EPA Instructional Resources Center
1200 Chambers Road, Room 310
Columbus, Ohio 43212
(614) 422-6717

Most of the materials announced in RIE are available on microfiche (microfilm) at over 700 sites throughout the United States and the world. Users can view these materials on site at many locations to identify what they believe will be useful to them at no cost. Microfiche copies (or in most cases Xerox copies) can be ordered through the ERIC Document Reproduction Service. The address and order information is in the back of each issue of RIE. Xerox copies of many items related to water quality and resource education and training can also be ordered through the EPA Instructional Resources Center for 3¢ per page plus \$1.00 per document.

For information about locations of ERIC microfiche sites in your state, contact the EPA Instructional Resources Center.

A number of journal articles processed for the IRIS (water) system are entered into the ERIC system and announced in Current Index to Journals in Education (CIJE).

Current Index to Journals in Education is published monthly and is available from:

ORYX Press
3930 East Camelback Road
Phoenix, Arizona 85018
(602) 254-6156

Many libraries subscribe to CIJE. Materials announced in CIJE can be searched manually each month by scanning CIJE or by checking the index terms in the back of each issue. Materials announced in CIJE can be searched by computer also. Refer to the previous discussion of RIE concerning computer searches.

Materials announced in CIJE can be located in journals at many university libraries.

Many of the articles can be obtained from University Microfilms. Current prices are \$6.00 for articles published before January 1976 and \$4.00 for articles published after January 1976. For further information write to:

UMI Article Reprint Department
300 North Zeeb Road
Ann Arbor, Michigan 48106
(313) 761-4700

II. How to Use the Compilation

A. Description of Information in Resumes

Each resume is listed by EW number in numerical order in the resume section. Two samples of resumes are provided to explain the data fields in the resumes. Sample resume #1 is a sample resume of an item not entered into ERIC. Sample resume #2 is a sample resume of an item entered into ERIC; a few additional data elements are in these resumes and are explained.

1. Sample resume of materials not entered in ERIC

- a. IRIS NUMBER: EW 006 023
- b. PUBLICATION DATE: FEB 81
- c. TITLE: PROGRAMMED APPROACH TO WATER/MASS ANALYSES.
- d. PERSONAL AUTHOR: SPENCE, GEORGE R., JR.
- e. DESCRIPTOR: *DESIGN; *ENGINEERING; *EQUIPMENT;
*MASS BALANCE; *PROJECT DESIGN; *POLLUTION ENGINEERING;
*PIPES; *WATER RESOURCES
- f. DESCRIPTIVE NOTE: 30-33P.
- g. ABSTRACT: DURING THE ENGINEERING PHASE OF A PROJECT DESIGN WATER REQUIREMENTS OFTEN CHANGE AS NEW INFORMATION BECOMES AVAILABLE. THIS ARTICLE DETAILS A PROGRAMMED APPROACH TO CALCULATION OF A WATER/MASS BALANCE WHICH PROVIDES THE USER WITH THE ABILITY TO READILY ASSESS THE IMPACT OF VARYING WATER QUALITIES, FLOW PATTERNS, AND FLOW RATES. THIS INFORMATION IS THEN USED IN DETERMINING PIPE AND EQUIPMENT SIZES.
- h. AVAILABILITY: POLLUTION ENGINEERING, V13 N2
- a. IRIS NUMBER -- this is the identification number sequentially assigned to materials as they are processed. Gaps in numbers mean that some items have been deleted, are being processed to add new information, or have been delayed in processing for some reason.
- b. PUBLICATION DATE -- date material was published according to information on the material.
- c. TITLE
- d. PERSONAL AUTHOR -- person or persons who wrote, compiled, or edited the material. Up to two personal authors can be listed.
- e. DESCRIPTOR -- subject terms which characterize substantive contents and form of the materials. The major terms are preceded by an asterisk. Terms used to index all resumes in this compilation can be reviewed in the Subject Index.
- f. DESCRIPTIVE NOTE -- various items of information may be contained in this section. For print materials the number of pages is usually listed.

- g. ABSTRACT -- some early materials entered into IRIS did not have abstract information. All materials currently being entered into IRIS have an informative abstract that describes the contents of the item.
- h. AVAILABILITY -- information in this field indicates where the material can be obtained and the price of the material quoted the last time information was received from the source. Please note: Prices of nearly all materials are subject to changes and may not be accurate at the time a person orders a specific item.

2. Sample resume of material entered into ERIC (Resources in Education)

Item entered into ERIC (Resources in Education) will have a few additional data fields.

IRIS ACCESSION NUMBER: EW006664

PUBLICATION DATE: 80

TITLE: RESOURCE DEVELOPMENT OF WATERSHED LANDS: A SIX WEEK SHORT COURSE.

DESCRIPTOR: ADMINISTRATION; ECOLOGICAL FACTORS; ECONOMIC FACTORS; INSTRUCTIONAL MATERIALS; *LAND USE; NATURAL RESOURCES; *POST SECONDARY EDUCATION; *TECHNICAL EDUCATION; *WATER RESOURCES; HYDROLOGY; NATURAL RESOURCES MANAGEMENT; WATER QUALITY; *WATERSHEDS

- b. DESCRIPTIVE NOTE: EDRS PRICE: MF01 PLUS POSTAGE-NOT AVAILABLE IN HARD COPY DUE TO MARGINAL LEGIBILITY OF ORIGINAL DOCUMENT

ABSTRACT: THIS COURSE WAS DESIGNED TO PROVIDE THE WATER RESOURCE TECHNICIAN OR MANAGER WITH INFORMATION WHICH WILL AID IN THE IMPLEMENTATION OF IMPROVEMENTS OF PRESENT LAND USE PRACTICES AND TO ILLUSTRATE ALTERNATIVE CONCEPTS AND TECHNIQUES IN LAND AND WATER USE FOR INCREASING AND IMPROVING THE MULTIPLE PRODUCTS

- a. OF WATERSHED LANDS. (ED 197 941)

AVAILABILITY: ERIC, DOCUMENT REPRODUCTION SERVICE, P. O. BOX 190, ARLINGTON, VA 22210

- a. ERIC NUMBER -- the ED number indicates the document has been processed and entered into RESOURCES IN EDUCATION. This identification number is the number to use when ordering a document or when requesting information about a document.
- b. EDRS PRICE -- if material is available through the ERIC Document Reproduction Service, the price of the material when it was entered into the ERIC system and the form of the material is indicated. "MF" means microfiche; "HC" means Xerox copy. Prices are subject to change. Current prices of microfiche and paper copies are listed in the back of each issue of RESOURCES IN EDUCATION; consult the latest monthly issue for current prices. Information about ordering items can also be obtained by contacting:

ERIC Document Reproduction Service (EDRS)
P. O. Box 190
Arlington, Virginia 22210

Telephone: (703) 841-1212

Items that are available on microfiche (MF) are contained in microfiche collections at over 700 sites where they can be read. For information on the microfiche locations in your state contact the EPA Instructional Resources Center.

B. How to Locate Desired Materials

Users can identify materials of interest by scanning the resume listings, or using the Subject Index, Author Index, or Institutional Index.

1. Subject Index

The Subject Index is designed to enable the user to search for information on either a broad subject or a narrow information concern. An EW number is included for each item listed under the subject heading. The EW number refers to the abstract entry in the resume section where complete bibliographic information, an abstract of the item, and availability information can be found.

A user can also coordinate a search by checking EW numbers that appear under two or more subject headings. For example, you could check all the EW numbers under Water Treatment and all the EW numbers under Films. EW numbers included under both subject headings would include information relevant to Water Treatment that were films. EW numbers under wastewater treatment and laboratory techniques would provide a list of materials related to Laboratory Techniques and to Wastewater Treatment. Similar techniques could be used to identify other information desired.

Users with ERIC microfiche should check the resume entry. If the document is available on microfiche from the ERIC Document Reproduction Service, the availability will be indicated by "MF" on the resume by "EDRS Price." This means libraries with ERIC microfiche collections should have the document on microfiche.

If you want a document available through the ERIC Document Reproduction Service (EDRS) see the section on ordering documents.

2. Author Index

If you desire to locate a document by the name of the author, you can use the Author Index. EW numbers are provided under the author in the Author Index as in the Subject Index. Some documents do not have a listed author; hence, they are not listed in this index.

III. Correcting an Existing IRIS Record

The IRIS data base will be updated on a quarterly basis. Corrections will be made to the data base at those times. You can help improve IRIS by sending corrections for items you find to be in error.

We request that you duplicate (copy) the resume from the compilation, mark the information you believe to be wrong (or incomplete), and send the marked resume to:

EPA Instructional Resources Center
1200 Chambers Road, Room 310
Columbus, Ohio 43212
(614) 422-6717

Corrections of errors will occur in the IRIS tapes at the next update after comments are received.

If you have difficulty obtaining materials from the listed source in the AVAILABILITY section of the resume, please let us know. We will contact the sources to verify whether the materials are available, but your assistance will provide corrections between annual availability checks.

If you are the supplier of materials in IRIS, please let us know if you remove a product from your list, modify a product on your list, or change the price of the product.

IV. Requests to Receive Information about IRIS and the IRC Bulletin

Information regarding IRIS, materials in IRIS, and modifications in the system will be announced in the IRC Bulletin. The Bulletin is issued about six times a year as information is available.

If you are not on the mailing list write to the EPA Instructional Resources Center. Limited numbers of some back issues are still available.

If you need information about IRIS you can also phone (614) 422-6717 with your questions.

V. Requests for Assistance in Using IRIS

A. Assistance in use of IRIS manuals

If you need help in using the IRIS manuals phone (614) 422-6717 or write to the EPA Instructional Resources Center. Staff are normally available from about 8:30 a.m. to 4:30 p.m. Eastern time to answer your questions.

B. Assistance in accessing IRIS by computer

1. Conducting searches.

See Section VIII.

2. Subscribing to BRS, Inc. for computer searching of IRIS.

Contact: Bibliographic Retrieval Services, Inc.
Corporation Park, Building 702
Scotia, New York 12302
(518) 374-5011

3. Subscribing to Dialog for computer searching of IRIS.

Contact: Dialog Information Retrieval Service
3460 Hillview Avenue
Palo Alto, California 94304
(415) 858-3775

4. Contacting a computer search service (an agency that will conduct a search for you, usually for a fee).

The EPA Instructional Resources Center maintains a list of agencies that can conduct searches. Most charge a fee, though some are free to qualified users in a limited geographical area.

Phone or write to obtain information for your area.

VI. How to Locate Other Relevant Educational Materials

A number of people have requested information related to such areas as management, basic skills (reading, mathematics, writing) human relations, contract negotiations, and other topics. The EPA Instructional Resources Center plans to develop some user service products in selected areas in 1982.

Another excellent source of information for many educational concerns is the ERIC System.

ERIC is a national information system designed and developed by the U.S. Office of Education, and now supported and operated by the National Institute of Education (NIE), for providing ready access to descriptions of exemplary programs, research and development efforts, and related information that can be used in developing more effective educational programs.

There are 16 Clearinghouses in the nationwide ERIC network. Each specializes in a different, multi-discipline, educational area. Each searches out pertinent documents.

The ERIC Clearinghouses have responsibility within the network for acquiring the significant educational literature within their particular areas, selecting the highest quality and most relevant material, processing (i.e., cataloging, indexing, abstracting) the selected items for input to the data base, and also for providing information analysis products and various user services based on the data base.

The 16 ERIC Clearinghouses are listed on the next few pages, together with addresses, telephone numbers, and brief scope notes describing the areas they cover. You can contact them for assistance in locating information relevant to their scope notes.

A. ERIC Clearinghouse on Adult, Career, and Vocational Education

The Ohio State University
National Center for Research in Vocational Education
1960 Kenny Road
Columbus, Ohio 43210
Telephone: (614) 486-3655

Career education, formal and informal at all levels, encompassing attitudes, self-knowledge, decision-making skills, general and occupational knowledge, and specific vocational and occupational skills; adult and continuing education, formal and informal, relating to occupational, family, leisure, citizen, organizational, and retirement roles; vocational and technical education, including new sub-professional fields, industrial arts, and vocational rehabilitation for the handicapped.

B. ERIC Clearinghouse on Counseling and Personnel Services

University of Michigan
2108 School of Education
Ann Arbor, Michigan 48109
Telephone: (313) 764-9492

Preparation, practice, and supervision of counselors at all educational levels and in all settings, theoretical development of counseling and guidance, use and results of personnel procedures such as testing, interviewing, disseminating, and analyzing such information, group work and case work; nature of pupil, student, and adult characteristics; personnel workers and their relation to career planning, family consultations, and student orientation activities.

- C. ERIC Clearinghouse on Elementary and Early Childhood Education
 University of Illinois
 College of Education
 805 West Pennsylvania Avenue
 Urbana, Illinois 61801
 Telephone: (217) 333-1386

Prenatal factors, parental behavior; the physical, psychological, social, educational, and cultural development of children from birth through the primary grades; educational theory, research, and practice related to the development of young children.

- D. ERIC Clearinghouse on Educational Management
 University of Oregon
 Library, Room 108
 Eugene, Oregon 97403
 Telephone: (503) 686-5043

Leadership, management, and structure of public and private educational organizations; practice and theory of administration; preservice and inservice preparation of administrators, tasks and processes of administration, methods and varieties of organization, organizational change, and social context of the organization.

Sites, buildings, and equipment for education; planning, financing, constructing, renovating, equipping, maintaining, operating, insuring, utilizing, and evaluating educational facilities.

- E. ERIC Clearinghouse on Handicapped and Gifted Children
 Council for Exceptional Children
 1920 Association Drive
 Reston, Virginia 22091
 Telephone: (703) 620-3660

Aurally handicapped, visually handicapped, mentally handicapped, physically handicapped, emotionally disturbed, speech handicapped, learning disabilities, and the gifted; behavioral, psychomotor, and communication disorders, administration of special education services; preparation and continuing education of professional and paraprofessional personnel; preschool learning and development of the exceptional; general studies on creativity.

F. ERIC Clearinghouse on Higher Education

George Washington University
One Dupont Circle, Suite 630
Washington, DC 20036
Telephone: (202) 296-2597

Various subjects relating to college and university students, college and university conditions and problems, college and university programs; curricular and instructional problems and programs, faculty, institutional research; federal programs, professional education (medical, law, etc.), graduate education, university extension programs, teaching-learning, planning, governance, finance, evaluation, interinstitutional arrangements, and management of higher educational institutions.

G. ERIC Clearinghouse on Information Resources

Syracuse University
School of Education
130 Huntington Hall
Syracuse, New York 13210
Telephone: (315) 423-3640

Management, operation, and use of libraries; the technology to improve their operation and the education, training, and professional activities of librarians and information specialists. Educational techniques involved in microteaching, systems analysis, and programmed instruction employing audiovisual teaching aids and technology, such as television, radio, computers, and cable television, communication satellites, microforms, and public television.

H. ERIC Clearinghouse for Junior Colleges

University of California
96 Powell Library Building
405 Hilgard Avenue
Los Angeles, California 90024
Telephone: (213) 825-3931

Development, administration, and evaluation of public and private community junior colleges. Junior college students, staff, curricula, programs, libraries, and community services.

I. ERIC Clearinghouse on Languages and Linguistics

Center for Applied Linguistics
3520 Prospect Street, N.W.
Washington, DC 20007
Telephone: (202) 298-9292

Languages and linguistics. Instructional methodology, psychology of language learning, cultural and intercultural content, application of linguistics, curricular problems and developments, teacher training and qualifications, language sciences, psycholinguistics, theoretical and applied linguistics, language pedagogy, bilingualism, and commonly taught languages including English and speakers of other languages.

- J. ERIC Clearinghouse on Reading and Communication Skills
 National Council of Teachers of English
 1111 Kenyon Road
 Urbana, Illinois 61801
 Telephone: (217) 328-3870

Reading, English, and communication skills, preschool through college. Educational research and development in reading, writing, speaking, and listening. Identification, diagnosis, and remediation of reading problems. Speech communication--forensics, mass communication, interpersonal and small group interaction, interpretation, rhetorical and communication theory, instruction development, speech sciences, and theater. Preparation of instructional staff and related personnel in these areas.

All aspects of reading behavior with emphasis on physiology, psychology, sociology, and teaching. Instructional materials, curricula, tests and measurement, preparation of reading teachers and specialists, and methodology at all levels. Role of libraries and other agencies in fostering and guiding reading. Diagnostic and remedial services in school and clinical settings.

- K. ERIC Clearinghouse on Rural Education and Small Schools
 New Mexico State University
 Box 3AP
 Las Cruces, New Mexico 88003
 Telephone: (505) 646-2623

Education of Indian Americans, Mexican Americans, Spanish Americans, and migratory farm workers and their children; outdoor education; economic, cultural, social, or other factors related to educational programs in rural areas and small schools; disadvantaged of rural and small school populations.

- L. ERIC Clearinghouse for Science, Mathematics, and Environmental Education
 The Ohio State University
 1200 Chambers Road - Room 310
 Columbus, Ohio 43212
 Telephone: (614) 422-6717

All levels of science, mathematics, and environmental education; development of curriculum and instructional materials; media applications; impact of interest, intelligence, values, and concept development upon learning; preservice and inservice teacher education and supervision.

- M. ERIC Clearinghouse for Social Studies/Social Science Education
 Social Science Education Consortium, Inc.
 855 Broadway
 Boulder, Colorado 80302
 Telephone: (303) 492-8434

All levels of social studies and social science; all activities relating to teachers; content of disciplines; applications of learning theory, curriculum theory, child development theory, and instructional theory; research and development programs; special needs of student groups; education as a social science; social studies/social science and the community.

- N. ERIC Clearinghouse on Teacher Education
 American Association of Colleges for Teacher Education
 One Dupont Circle, Suite 610
 Washington, DC 20036
 Telephone: (202) 293-2450

School personnel at all levels; all issues from selection through preservice and inservice preparation and training to retirement; curricula, educational theory and philosophy; general education not specifically covered by Educational Management Clearinghouse; Title XI NDEA Institutes not covered by subject speciality in other ERIC Clearinghouses; all aspects of physical education.

- O. ERIC Clearinghouse on Tests, Measurement, and Evaluation
 Educational Testing Service
 Rosedale Road
 Princeton, New Jersey 08541
 Telephone: (609) 734-5180

Tests and other measurement devices; evaluation procedures and techniques; application of tests, measurement, or evaluation in educational projects of programs.

- P. ERIC Clearinghouse on Urban Education
 Columbia University
 Teachers College
 Box 40
 525 West 120th Street
 New York, New York 10027
 Telephone: (212) 678-3437

The relationship between urban life and schooling; the effect of urban experiences and environments from birth onward; the academic, intellectual, and social performance of urban children and youth from grade three through college entrance (including the effect of self concept, motivation, and other affective influences); education of urban,

Puerto Rican and Asian American populations, and rural and urban black populations; programs and practices which provide learning experiences designed to meet the special needs of diverse populations served by urban schools and which build upon their unique as well as their common characteristics, structural changes in the classroom, school, school system, and community and innovative instructional practices which directly affect urban children and youth; programs, practices, and materials related to economic and ethnic discrimination, segregation, desegregation, and integration in education; issues, programs, practices, and materials related to redressing the curriculum imbalance in the treatment of ethnic minority groups.

- Q. Educational Resources Information Center
 Central ERIC
 National Institute of Education
 1200-19th Street, N.W.
 Washington, DC 20208
 Telephone: (202) 254-5555

There are other sources of educational information in many states. Included are information dissemination units in the state departments of education, intermediate education units, and local education units. In many cases, a local school administrator or school librarian can help you locate assistance.

VII. How to Structure a Computer Search of IRIS

This explanation relates to the IRIS data base that can be searched on-line through Bibliographic Retrieval Services, Inc. or Dialog. As IRIS becomes available through other sources, information relevant to those services will be provided.

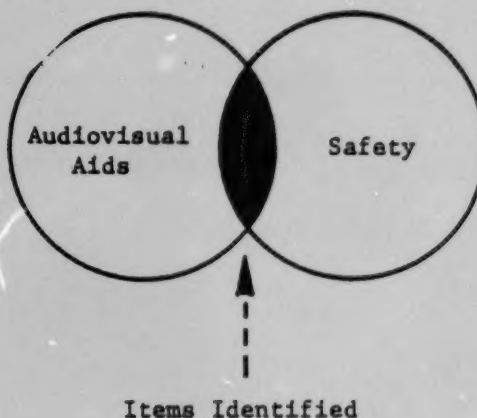
A few notes about the service are important. The following fields are searchable by computer: (1) IRIS Accession Number (EW number), (2) ERIC Accession Number (ED number), (3) Authors, (4) Institution, (5) Title, (6) Subject index terms, and (7) Abstract.

If you submit a search of IRIS through BRS or Dialog, the program will search for the words you select in three fields unless the searcher requests to limit the search. These fields are: (1) the title field, (2) the subject index field, and (3) the abstract. We recommend you use this feature especially for searches on specific terms. If you find more material than you want by this technique you can narrow the search to items that may have the most information on the topic by limiting the search to the subject index field.

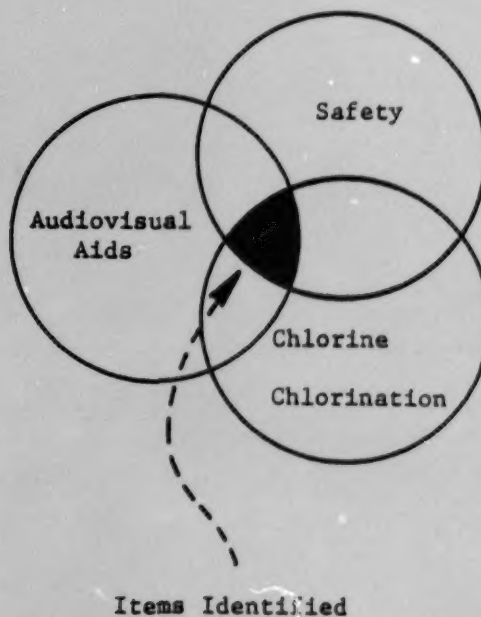
Several sample searches are listed on the following pages.

A. Sample 1

If you want to locate audiovisual aids that relate to safety you would submit a search with audiovisual aids and safety. Materials that included the terms both audiovisual aids and safety in the title field, the abstract, and the subject index field would be identified by the computer.

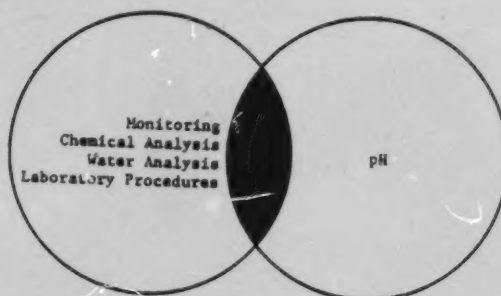


The computer program can tell you the number of items, the title of the items, or print the entire resume of each item. If you were primarily interested in audiovisual aids, safety, and chlorine you would submit a search of these three terms. You might want to include chlorides and chlorination as well as chlorine in the search. This search would identify materials that contained audiovisual aids, safety, and one or more of the words, chlorine and chlorination.



B. Sample 2

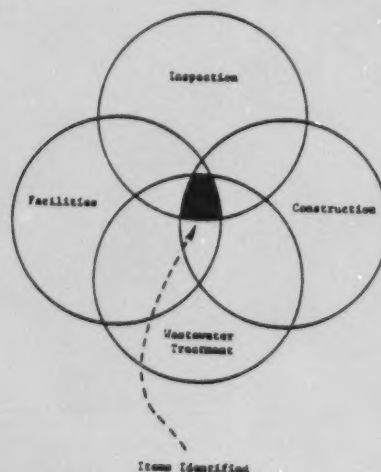
If you want to identify materials related to monitoring, you should include several related terms and the chemical, material, or situation that is being monitored. See the example below.



This search would identify all the items that included any of the terms on the left and pH.

C. Sample 3

If you are interested in materials related to inspection and construction you could conduct a search of these two terms. The search would identify all materials that included both terms. If you were interested in only wastewater treatment facilities you could construct a search as diagrammed.



This search would yield specific materials and demonstrates how a computer search can help you locate materials you want.

The subject index can also be used to help you select words to include in a search. Words listed in the subject index are certain to be in the searchable fields. Therefore, selecting these terms to use in structuring a search will increase the probability of locating materials. Some words will appear in the title or abstract that are not included in the subject term field. Such words can be used to check if any materials are in the data base. If, however, you conduct a search with such a word it is usually best to include a synonym that is in the subject index.

VIII. How to Order Materials

The AVAILABILITY field in the resume indicates where materials can be obtained. A few of the sources are explained.

- A. A number of audiovisual materials can be obtained on loan or purchased from the EPA Instructional Resources Center. Most items previously available from the NTOTC office will be available after November 1, 1981 from the EPA Instructional Resources Center at The Ohio State University. For further information write or call.
- B. Some of the materials are available through the ERIC Document Reproduction Service. MF (microfiche) are 4" x 6" sheets of microfilm; up to 96 pages of text can be reproduced on one sheet. HC (paper copy) is a reproduction of the document in paper form at the original size.

Order forms for these materials can be obtained from:

ERIC Document Reproduction Service
P.O. Box 190
Arlington, Virginia 22210
(703) 841-1212

- C. The EPA Instructional Resources Center will provide xerox copies of materials that are not copyrighted for \$1.00 per document plus \$0.03 per page.

If you can not obtain materials that are listed or have difficulty obtaining materials, please contact the EPA Instructional Resources Center. We can provide assistance in obtaining materials from some sources. If materials become unavailable, we will remove them from the IRIS data base.

RESUME SECTION

IRIS ACCESSION NUMBER: EW000153

PUBLICATION DATE: 75

TITLE: THE RIVER MUST LIVE.

DESCRIPTOR: *AUDIOVISUAL AIDS; ENVIRONMENT; *FILMS;
*INSTRUCTIONAL FILMS; POLLUTION; *RIVERS; *WATER QUALITY;
*WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 16MM, 21 MIN., COLOR.

ABSTRACT: DRAMATIC FILM OF THE EFFECT OF MAN ON THE WATER ENVIRONMENT.

AVAILABILITY: SHELL FILM LIBRARY, 400 NORTH MERIDAN ST.,
INDIANAPOLIS, IN 46204

IRIS ACCESSION NUMBER: EW001386

PUBLICATION DATE: 73

TITLE: GUIDE TO THE PREPARATION OF OPERATIONAL PLANS FOR
SEWAGE TREATMENT FACILITIES.

PERSONAL AUTHOR: SEILER, E. L.; ALTMAN, J. W.

DESCRIPTOR: *DESIGN; *FACILITIES; GUIDELINES; *JOB
ANALYSIS; *OPERATIONS (WASTEWATER); *RECORD KEEPING; *START
UP; TRAINING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 212P.

ABSTRACT: GUIDE FOR PLANNING TREATMENT PLANT DESIGN AND
STARTUP TO ENSURE COST EFFECTIVE OPERATION. HEAVY EMPHASIS
ON USE OF INFORMATIONAL AND TRAINING AIDS (MANUALS,
CHECKLISTS, REFERENCE MATERIAL, TASK SCHEDULES, OPERATING
RECORDS, JOB DESCRIPTION, ETC.).

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT
PRINTING OFFICE, WASHINGTON, DC 20402

IRIS ACCESSION NUMBER: EW002908

PUBLICATION DATE: FEB 79

TITLE: INDICATOR ORGANISMS: LEARNER'S GUIDE FOR A CRITICAL
PATH IN WATER QUALITY MONITORING.

PERSONAL AUTHOR: GLAZER, RICHARD B.; AND OTHERS

DESCRIPTOR: *EQUIPMENT UTILIZATION; JOB SKILLS; *LABORATORY
EQUIPMENT; *LABORATORY PROCEDURES; *MICROBIOLOGY; *POST
SECONDARY EDUCATION; *SAFETY; *WATER POLLUTION CONTROL;
OPERATIONS (WATER); *WATER TREATMENT; INSTRUCTIONAL
MATERIALS

DESCRIPTIVE NOTE: 92P. EDRS PRICE: MF-\$0.83; HC-\$4.67
PLUS POSTAGE

ABSTRACT: THIS LEARNER'S GUIDE ON INDICATOR ORGANISMS IS
DERIVED FROM A WATER MONITORING CURRICULUM DEVELOPED AT
ULSTER COUNTY COMMUNITY COLLEGE. THERE ARE 37 MODULES IN
THIS GUIDE; EACH IS INTRODUCED WITH A STATEMENT OF PURPOSE
AND THEN BROKEN DOWN INTO UNITS OF INSTRUCTION. THESE UNITS
CONTAIN AN OBJECTIVE, LEARNING CONDITIONS, AND A PERFORMANCE
LEVEL. THE MODULES COVER: (1) SAFETY; (2) SCIENTIFIC
NOTATION; (3) LABORATORY EQUIPMENT; (4) MICROBIOLOGY; (5)
BACTERIOLOGY; AND (6) SAMPLE ANALYSIS.(ED 167 411)

AVAILABILITY: ERIC DOCUMENT REPRODUCTION SERVICE, P.O. BOX
190, ARLINGTON, VA 22210

IRIS ACCESSION NUMBER: EW002963

PUBLICATION DATE: FEB 79

TITLE: NUTRIENTS: LEARNER'S GUIDE FOR A CRITICAL PATH IN
WATER QUALITY MONITORING.

PERSONAL AUTHOR: GLAZER, RICHARD B.; AND OTHERS

DESCRIPTOR: *CHEMICAL ANALYSES; CHEMISTRY; EQUIPMENT
UTILIZATION; INSTRUCTIONAL MATERIALS; JOB SKILLS; LABORATORY
EQUIPMENT; *LABORATORY PROCEDURES; *MICROBIOLOGY; *POST
SECONDARY EDUCATION; *SAFETY; WATER RESOURCES; *NITROGEN;
OXYGEN; *PHOSPHATES; WATER QUALITY

DESCRIPTIVE NOTE: 102P. EDRS PRICE: MF-\$0.83; HC-\$6.01
PLUS POSTAGE

ABSTRACT: THIS LEARNER'S GUIDE ON NUTRIENTS IS DERIVED FROM
A WATER MONITORING CURRICULUM DEVELOPED AT ULSTER COUNTY
COMMUNITY COLLEGE. THERE ARE 30 MODULES IN THIS GUIDE; EACH
INTRODUCED WITH A STATEMENT OF PURPOSE AND THEN BROKEN DOWN
INTO AN OBJECTIVE, LEARNING CONDITION, AND PERFORMANCE
LEVEL. THE MODULES COVER: (1) SAFETY; (2) CHEMICAL
COMPOUNDS; (3) EQUIPMENT UTILIZATION; (4) BIOCHEMICAL
REACTIONS; AND (5) CHEMICAL DETERMINATIONS. AMONG THE
CHEMICAL TESTS INCLUDED ARE THOSE FOR OXYGEN, CHLORINE,
NITROGEN, PHOSPHORUS, CARBON, PH, AND HARDNESS.(ED 167 412)

AVAILABILITY: ERIC DOCUMENT REPRODUCTION SERVICE, P.O. BOX
190, ARLINGTON, VA 22210

IRIS ACCESSION NUMBER: EW003375

PUBLICATION DATE: 77

TITLE: SUPERVISORY MANAGEMENT IN THE WATER/WASTEWATER
FIELD.

PERSONAL AUTHOR: MICHIGAN STATE UNIVERSITY

DESCRIPTOR: COMMUNICATIONS; EMPLOYEE RELATIONS;
*INSTRUCTIONAL MATERIALS; *MANAGEMENT; *OPERATIONS
(WASTEWATER); *OPERATIONS (WATER); PLANNING; *POST SECONDARY
EDUCATION; PROBLEM SOLVING; *SUPERVISION; *TEACHING GUIDES;
*WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 379P. CONTAINS TEXTBOOK AND INSTRUCTOR'S MANUAL.

ABSTRACT: THIS INSTRUCTOR'S MANUAL CONTAINS MATERIAL FOR A CLASSROOM OR SELF-STUDY COURSE ON WATER AND WASTEWATER MANAGEMENT. THE COURSE INCLUDES AN OVERVIEW OF MANAGEMENT AND IS SPECIFICALLY WRITTEN FOR THE MIDDLE MANAGER. SECTIONS INCLUDE: INTRODUCTION TO MANAGEMENT; THE MANAGER'S RESPONSIBILITY TOWARD DELEGATION AND MOTIVATION; THE SUPERVISOR'S NEED FOR PROBLEM SOLVING AND COMMUNICATION SKILLS; PLANNING AND ORGANIZING; STAFFING; THE MANAGER'S RESPONSIBILITY IN DIRECTING AND CONTROLLING; AND, MANAGERIAL RELATIONS WITH THE UNION AND EMPLOYEES.

AVAILABILITY: MICHIGAN STATE UNIVERSITY, GRADUATE SCHOOL OF BUSINESS ADMINISTRATION, 432 EPPLEY CENTER, LANSING, MI 48824

IRIS ACCESSION NUMBER: EW003373

PUBLICATION DATE: 78

TITLE: SUPERVISORY MANAGEMENT IN THE WATER/WASTEWATER FIELD: SELF-STUDY PROGRAM. REVISED SECOND EDITION. INSTRUCTOR MANUAL. EXECUTIVE PROGRAMS OF THE GRADUATE SCHOOL OF BUSINESS ADMINISTRATION OF MICHIGAN STATE UNIVERSITY.

PERSONAL AUTHOR: LIEBRENTZ, MARILYN L., ED.

DESCRIPTOR: INSTRUCTIONAL MATERIALS; JOB SKILLS; *MANAGEMENT; *POST SECONDARY EDUCATION; *PROFESSIONAL TRAINING; *SUPERVISION; *TEACHING GUIDES; WASTE DISPOSAL; WATER POLLUTION CONTROL; *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 339P. EDRS PRICE: MF-\$0.83; HC-\$18.07 PLUS POSTAGE

ABSTRACT: THIS DOCUMENT IS THE INSTRUCTOR'S MANUAL FOR A COURSE ON SUPERVISORY MANAGEMENT AS IT RELATES TO THE WATER OR WASTEWATER TREATMENT FIELD. EACH OF THE SEVEN MODULES IS CONCERNED WITH A SEGMENT OF THE MANAGEMENT/SUPERVISION PROCESS AND CORRESPONDS TO READING MATERIAL IN AN ACCOMPANYING TEXT. AN OBJECTIVE AND SUBJECTIVE TEST PORTION IS INCLUDED WITH EACH LESSON OF A MODULE. MODULE TOPICS ARE: (1) INTRODUCTION TO MANAGEMENT; (2) RESPONSIBILITY TOWARD DELEGATION AND MOTIVATION; (3) PROBLEM SOLVING AND COMMUNICATION SKILLS; (4) PLANNING AND ORGANIZING; (5) STAFFING; (6) RESPONSIBILITY IN DIRECTING AND CONTROLLING; AND (7) RELATIONS WITH THE UNION AND EMPLOYEES. A SUPERVISORY MANAGEMENT AUDIT IS PROVIDED IN THE APPENDIX. (ED 167 408)

AVAILABILITY: ERIC DOCUMENT REPRODUCTION SERVICE, P.O. BOX 190, ARLINGTON, VA 22210

IRIS ACCESSION NUMBER: EW003779

PUBLICATION DATE: MAY 77

TITLE: THE EFFECTIVE PUBLIC MEETING IN WATER QUALITY PLANNING: WHEN TO HOLD IT, HOW TO DESIGN IT, PREPARE FOR IT, CONDUCT IT, USE AND REPORT ON THE INFORMATION OBTAINED FROM IT, EVALUATE IT, BUDGET FOR IT. GUIDE 1.

PERSONAL AUTHOR: RAGAN, JAMES F., JR.

DESCRIPTOR: ADMINISTRATIVE PROBLEMS; ADMINISTRATOR ROLE; *CITIZEN PARTICIPATION; CITIZEN ROLE; DECISION MAKING; *MEETINGS; *PUBLIC PARTICIPATION; PUBLIC POLICY; *WATER POLLUTION CONTROL; *WATER RESOURCES; WORKSHOPS

DESCRIPTIVE NOTE: 43P. EDRS PRICE: MF-\$0.83; HC-\$2.06 PLUS POSTAGE

ABSTRACT: THIS GUIDE DEFINES THE CONCEPT AND FUNCTION OF THE PUBLIC MEETING AS CONDUCTED BY A PUBLIC AGENCY. IT OFFERS ADVICE ON SELECTING APPROPRIATE MEETING PLACES AND WHEN BEST TO HOLD THESE MEETINGS TO ENCOURAGE MAXIMUM CITIZEN PARTICIPATION. THE GUIDE DISCUSSES THE CONDUCT OF BOTH FORMAL AND NONFORMAL MEETING FORMATS. THE COMMUNICATION TECHNIQUES USEFUL IN PREPARING FOR AND CONDUCTING THE MEETING ARE DISCUSSED WITH SUGGESTIONS FOR ENHANCING PREPARATION AND PARTICIPATION BY THE PUBLIC. METHODS OF GATHERING FEEDBACK FROM THE MEETING AND REPORTING TO THE AGENCY AND TO THE PUBLIC ARE PRESENTED AS WELL AS METHODS FOR EVALUATING THE EFFECTIVENESS OF MEETINGS. A CHAPTER IS DEVOTED TO CONSIDERATIONS OF BUDGETING FOR THE PUBLIC MEETING. A CHECKLIST FOR PREPARATION FOR A PUBLIC MEETING IS PROVIDED. AN APPENDIX PROVIDES AN ANNOTATED BIBLIOGRAPHY FOR FURTHER READING. (ED 164 340)

AVAILABILITY: ERIC DOCUMENT REPRODUCTION SERVICE, P.O. BOX 190, ARLINGTON, VA 22210

IRIS ACCESSION NUMBER: EW003818

PUBLICATION DATE: 78

TITLE: INSTRUMENTATION FOR ENVIRONMENTAL MONITORING: WATER, VOLUME 2.

DESCRIPTOR: BIOLOGY; CHEMISTRY; *ENVIRONMENT; EQUIPMENT; *INSTRUCTIONAL MATERIALS; INSTRUMENTATION; *LABORATORY TECHNIQUES; METALS; NATURAL RESOURCES; PESTICIDES; *POST SECONDARY EDUCATION; *RESEARCH; SCIENCE EQUIPMENT; WATER POLLUTION CONTROL; WATER RESOURCES; WASTEWATER TREATMENT; WATER TREATMENT

DESCRIPTIVE NOTE: 1,179P. EDRS PRICE: MF-\$2.17; HC-\$63.63 PLUS POSTAGE

ABSTRACT: THIS VOLUME IS ONE OF A SERIES DISCUSSING INSTRUMENTATION FOR ENVIRONMENTAL MONITORING. EACH VOLUME CONTAINS AN OVERVIEW OF THE BASIC PROBLEMS, COMPARISONS AMONG THE BASIC METHODS OF SENSING AND DETECTION, AND NOTES THAT SUMMARIZE THE CHARACTERISTICS OF PRESENTLY AVAILABLE INSTRUMENTS AND TECHNIQUES. THE TEXT OF THIS SURVEY

DISCUSSES THE INSTRUMENTATION PRESENTLY AVAILABLE TO PROVIDE QUANTITATIVE MONITORING FOR FRESH WATER AND ESTUARINE WATER. TECHNIQUES WHICH MAY BE DEVELOPED INTO INSTRUMENTATION ARE ALSO DISCUSSED. IN ADDITION, RECOMMENDATIONS FOR IMPROVED OR NEW INSTRUMENTATION ARE INCLUDED. EACH SECTION OF THIS VOLUME ADDRESSES A PARTICULAR POLLUTANT OR PARAMETER AND CONTAINS AN INTRODUCTION DISCUSSING RELEVANT BACKGROUND INFORMATION AND A DETAILED CRITIQUE OF INSTRUMENTATION TECHNIQUES. INFORMATION PERTINENT TO THE INDIVIDUAL INSTRUMENTS IS GIVEN IN THE INSTRUMENT NOTES. TOPICAL AREAS INCLUDE: METALS; HALIDES AND CYANIDE; BIOLOGICAL PARAMETERS; PHENOLICS; PETROCHEMICALS; RADIATION; AND PHYSICAL PARAMETERS. (ED 167 342)

AVAILABILITY: ERIC DOCUMENT REPRODUCTION SERVICE, P.O. BOX 190, ARLINGTON, VA 22210

IRIS ACCESSION NUMBER: EW003967

PUBLICATION DATE: OCT 78

TITLE: THE USE OF THE PERFORMANCE-ORIENTED INSTRUCTIONAL WORKSHEET IN MEETING INSTRUCTIONAL NEEDS WITHIN THE ENVIRONMENTAL PROTECTION AGENCY.

PERSONAL AUTHOR: GEARHART, ROBERT A.; AND OTHERS

DESCRIPTOR: ADMINISTRATOR GUIDES; *BEHAVIORAL OBJECTIVES; EVALUATION; *INSTRUCTION; *INSTRUCTIONAL IMPROVEMENT; JOB SKILLS; *PERFORMANCE CRITERIA; *POST SECONDARY EDUCATION

DESCRIPTIVE NOTE: 26P. EDRS PRICE: MF 01/PC02 PLUS POSTAGE

ABSTRACT: THIS BOOKLET PROVIDES A STEP-BY-STEP GUIDE TO NON-TRADITIONAL EDUCATORS FOR DEVELOPING AND WRITING BEHAVIORAL OBJECTIVES. WORKSHEETS AND GUIDELINES ARE PROVIDED TO ASSIST THE INSTRUCTOR IN DEVELOPING INDIVIDUAL LESSONS AND COURSE MATERIALS. A MODEL IS PROVIDED FOR REFERENCE. (ED 170 120)

AVAILABILITY: ERIC DOCUMENT REPRODUCTION SERVICE, P.O. BOX 190, ARLINGTON, VA 22210

IRIS ACCESSION NUMBER: EW003968

PUBLICATION DATE: SEP 77

TITLE: METRICATION FOR THE MANAGER.

PERSONAL AUTHOR: BENEDICT, JOHN T.

DESCRIPTOR: *BUSINESS ADMINISTRATION; *INSTRUCTION; *MANAGEMENT; *MANUFACTURING INDUSTRY; MATHEMATICAL APPLICATIONS; *MATHEMATICS EDUCATION; MEASUREMENT; *METRIC SYSTEM; POST SECONDARY EDUCATION; RESOURCE MATERIALS

DESCRIPTIVE NOTE: PRICE: \$4.50

ABSTRACT: THE SCOPE OF THIS BOOK COVERS METRICATION

MANAGEMENT. IT WAS CREATED TO FILL THE MIDDLE MANAGEMENT NEED FOR CONDENSED, AUTHORITATIVE INFORMATION ABOUT THE METRICATION PROCESS AND WAS CONCEIVED AS A WORKING TOOL AND A PRIME REFERENCE SOURCE. WRITTEN FROM A MANAGEMENT POINT OF VIEW, IT TOUCHES ON VIRTUALLY ALL ASPECTS OF METRICATION AND HIGHLIGHTS THE IMPORTANT FACTORS. EMPHASIS IS ON THE MANUFACTURING BUSINESS; HOWEVER, INFORMATION AND IDEAS APPLY EQUALLY WELL TO OTHER ORGANIZATIONS AND BUSINESSES. CONTENTS INCLUDE CHAPTERS ON PLANNING, ENGINEERING, MANUFACTURING, PURCHASING, MARKETING, COMPUTER SYSTEMS, TRAINING, AND COST.

AVAILABILITY: AMERICAN NATIONAL METRIC COUNCIL, 1625 MASSACHUSETTS AVE., N.W., WASHINGTON, DC 20036

IRIS ACCESSION NUMBER: EW003969

PUBLICATION DATE: 77

TITLE: TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS OF THE UNITED STATES GEOLOGICAL SURVEY. BOOK 5, LABORATORY ANALYSIS. CHAPTER A5, METHODS FOR DETERMINATION OF RADIOACTIVE SUBSTANCES IN WATER AND FLUVIAL SEDIMENTS.

PERSONAL AUTHOR: THATCHER, L. L.; AND OTHERS

DESCRIPTOR: *CHEMICAL ANALYSIS; *GEOLOGY; *LABORATORY TECHNIQUES; PHYSICS; POLLUTION; RESOURCE MATERIALS; SCIENCE EQUIPMENT; WATER POLLUTION CONTROL; *SEDIMENTS; *RADIOACTIVE SUBSTANCES; WATER QUALITY

DESCRIPTIVE NOTE: STOCK NUMBER 024-001-02228-6

ABSTRACT: ANALYTICAL METHODS FOR DETERMINING IMPORTANT COMPONENTS OF FISSION AND NATURAL RADIOACTIVITY FOUND IN WATER ARE REPORTED. THE DISCUSSION OF EACH METHOD INCLUDES CONDITIONS FOR APPLICATION OF THE METHOD, A SUMMARY OF THE METHOD, INTERFERENCES, REQUIRED APPARATUS, PROCEDURES, CALCULATIONS AND ESTIMATION OF PRECISION. ISOTOPES CONSIDERED ARE CESIUM-137, STRONTIUM-90, LEAD-210, RADIUM-226 AND 228, TRITIUM, AND CARBON-14. WHEN TWO METHODS ARE IN USE FOR AN ISOTOPE, BOTH METHODS ARE REPORTED. TECHNIQUES FOR THE COLLECTION AND PRESERVATION OF WATER SAMPLES TO BE ANALYZED FOR RADIOACTIVITY ARE ALSO DISCUSSED.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON DC 20402

IRIS ACCESSION NUMBER: EW004116

PUBLICATION DATE: 78

TITLE: WATER RESOURCES FOR OUR CITIES. RESOURCE PAPERS FOR COLLEGE GEOGRAPHY NO. 78-2.

PERSONAL AUTHOR: BAUMANN, DUANE D.; DWORKIN, DANIEL

DESCRIPTOR: *CITY PROBLEMS; ECOLOGICAL FACTORS; ECOLOGY; ENVIRONMENTAL EDUCATION; MAJORITY ATTITUDES; POLLUTION; *PUBLIC POLICY; URBAN ENVIRONMENT; *URBANIZATION; *WASTE DISPOSAL; *WATER POLLUTION CONTROL; *WATER RESOURCES

DESCRIPTIVE NOTE: 45P. PRICE: \$2.50

ABSTRACT: THIS PAPER ARGUES THAT A RE-EXAMINATION OF CURRENT GOALS AND METHODOLOGIES AND MODIFICATIONS TO MANAGEMENT PRACTICES ARE NECESSARY IF URBAN WATER CRISES ARE TO BE MINIMIZED. THREE PROBLEM AREAS ARE FOCUSED ON: (1) THE PROJECTION OF DEMAND AND THE ESTIMATION OF SUPPLY; (2) THE ALTERNATIVES FOR BALANCING DEMAND AND SUPPLY; AND (3) THE MANAGEMENT OF WASTEWATER. AN HISTORICAL EXAMINATION OF URBAN WATER SYSTEMS IS PRESENTED TO PROVIDE AN UNDERSTANDING OF HOW WATER SYSTEMS HAVE DEVELOPED IN THE UNITED STATES. AN EVALUATION OF BOTH PRIVATE AND PUBLIC INSTITUTIONS IS INCLUDED TO SHED LIGHT ON THE EFFICACY OF EACH WITH RESPECT TO WATER QUALITY. IN ADDITION, CURRENT PROBLEMS ARE FURTHER ILLUSTRATED THROUGH AN EXAMINATION OF HOW PROBLEMS OF QUANTITY AND QUALITY WERE RESOLVED IN THE PAST. RECOMMENDATIONS FOR IMPROVING THE SITUATION ARE MADE. A BIBLIOGRAPHY AND NUMEROUS TABLES AND CHARTS SHOWING STATISTICAL DATA ARE INCLUDED. (ED 164 664)

AVAILABILITY: ASSOCIATION OF AMERICAN GEOGRAPHERS, 1716 SIXTEENTH STREET, N.W., WASHINGTON, DC 20009

IRIS ACCESSION NUMBER: EW004117

PUBLICATION DATE: 78

TITLE: IDENTIFICATION AND DEVELOPMENT OF COMPETENCY-BASED CURRICULUM FOR WATER AND WASTEWATER PROGRAM.

DESCRIPTOR: COMMUNITY COLLEGES; *CURRICULUM DEVELOPMENT; *CURRICULUM EVALUATION; CURRICULUM GUIDES; GRADUATE SURVEYS; JOB SKILLS; JUNIOR COLLEGES; OCCUPATIONAL SURVEYS; PART TIME STUDENTS; *PERFORMANCE BASED EDUCATION; PROGRAM EFFECTIVENESS; PROGRAM EVALUATION; REMEDIAL COURSES; SCHOOL INDUSTRY RELATIONSHIP; TASK ANALYSIS; TEACHER EVALUATION; TESTING; *TRADE AND INDUSTRIAL EDUCATION; VOCATIONAL FOLLOWUP; WASTE DISPOSAL; *WATER RESOURCES; WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 477P. EDRS PRICE: MF-00.83 HC-\$26.11 PLUS POSTAGE.

ABSTRACT: A PROJECT WAS UNDERTAKEN AT KIRKWOOD COMMUNITY COLLEGE TO DEVELOP A FULL-TIME AND PART-TIME COMPETENCY BASED PROGRAM TO EDUCATE WATER AND WASTEWATER TREATMENT PLANT OPERATORS. FIRST, A SURVEY WAS CONDUCTED TO IDENTIFY THE JOB TASKS PERFORMED BY THE OPERATORS, THEIR FREQUENCY, IMPORTANCE, AND NECESSITY. A QUESTIONNAIRE LISTING 651 TASKS DIVIDED INTO SIX SUBJECT AREAS (MANAGEMENT, HUMAN RELATIONS, WASTEWATER COLLECTION, WASTEWATER TREATMENT, WATER TREATMENT, AND WATER DISTRIBUTION) WAS SENT OUT TO OPERATORS AT THREE JOB LEVELS. BASED ON RESPONSES FROM 231 OPERATORS, 439 TASKS WERE FOUND TO BE SIGNIFICANT IN PLANT OPERATION. IT WAS THEN NECESSARY TO REVISE THE EXISTING CURRICULUM TO ADDRESS THESE TASKS MORE FULLY AND TO CONVERT IT TO A COMPETENCY BASED FORMAT. A COMPETENCY BASED TESTING PROGRAM WAS DEVELOPED TO PERMIT STUDENTS TO "TEST OUT" OF INSTRUCTIONAL UNITS, AND THE CURRICULUM WAS CHANGED TO ALLOW ENTRY AT VARIOUS TIMES. TO EVALUATE THE PROGRAM, FOUR TYPES OF MEASUREMENT WERE USED: (1) COURSE EFFECTIVENESS, MEASURED BY A COMPUTERIZED CAMPUS SYSTEM CALLED SPOT, WHICH IS

ADMINISTERED TO STUDENTS UPON PROGRAM COMPLETION; (2) INSTRUCTOR EFFECTIVENESS; (3) STUDENT SKILLS PERFORMANCE WHICH INCLUDES A BASIC MATH SKILLS TEST UPON ENTRY AND A REMEDIAL PROGRAM, CALLED PAD, TO CORRECT MATH AND READING DEFICIENCIES; AND (4) POSTGRADUATE JOB PERFORMANCE. (ED 164 850)

AVAILABILITY: ERIC DOCUMENT REPRODUCTION SERVICE, P.O. BOX 190, ARLINGTON, VA 22210

IRIS ACCESSION NUMBER: EW004118

PUBLICATION DATE: 78

TITLE: THE ASSESSMENT OF PUBLIC ISSUE PERCEPTION: EXPLORATION OF A THREE-TIERED, SOCIAL-NETWORK BASED METHODOLOGY IN THE CHAMPLAIN BASIN.

PERSONAL AUTHOR: CORE, PETER H.; AND OTHERS

DESCRIPTOR: *CITIZEN PARTICIPATION; CONSERVATION (ENVIRONMENT); *ENVIRONMENT; FEDERAL PROGRAMS; HIGH SCHOOL STUDENTS; *INFORMATION DISSEMINATION; INTERVIEWS; LAND USE; METHODS; NEEDS ASSESSMENT; ORGANIZATIONS (GROUPS); PUBLIC OPINION; PUBLIC SUPPORT; *RESEARCH DESIGN; RURAL AREAS; *SOCIAL SYSTEMS; SURVEYS; URBAN AREAS; WATER RESOURCES

DESCRIPTIVE NOTE: 67P. EDRS PRICE: MF-00.83 PLUS POSTAGE. HC NOT AVAILABLE FROM EDRS.

ABSTRACT: DESIGN, APPLICATION, AND INTERPRETATION OF A THREE-TIERED SAMPLING FRAMEWORK AS A STRATEGY FOR ELICITING PUBLIC PARTICIPATION IN PLANNING AND PROGRAM IMPLEMENTATION IS PRESENTED, WITH EMPHASIS ON IMPLICATIONS FOR FEDERAL PROGRAMS WHICH MANDATE CITIZEN PARTICIPATION (FOR EXAMPLE, LEVEL B PLANNING OF WATER RESOURCES PLANNING ACT, FEDERAL WATER POLLUTION CONTROL AMENDMENTS). THE THREE-TIERED SURVEY PROCEDURE WAS USED IN THE LAKE CHAMPLAIN BASIN STUDY, WHICH DEALT WITH DEVELOPMENT AND IMPLEMENTATION OF LONG-RANGE PROGRAMS FOR CONSERVATION AND DEVELOPMENT AND USE OF WATER AND LAND RESOURCES IN A MIXED RURAL/URBAN AREA OF UNEVEN SOCIOECONOMIC STATUS. STUDY GOALS WERE A BROADER DATA BASE, A REPRESENTATIVE BASIN CONSTITUENCY, AND IDENTIFICATION OF AND RELATIVE IMPORTANCE OF BASIN ISSUES; THE TIERS WERE HIGH SCHOOL, KEY INFORMANT, AND ORGANIZATIONAL SURVEYS. THE SEVEN BASIC CATEGORIES OF ENVIRONMENTAL CONCERN RANKED BY RESPONDENTS WERE LAND USE, WETLAND ISSUES, WATER POLLUTION, SOCIOECONOMIC ISSUES, RECREATION, ENERGY, AND PLANNING/MANAGEMENT. RESULTS SHOW THAT THE RESEARCH DESIGN GAVE REPRESENTATIVE GROUPS A SYSTEMATIC OPPORTUNITY TO RESPOND TO ISSUES AND THAT THE PUBLIC DID RESPOND AND RANK PRIORITY ISSUES. IT IS PREDICTED THAT TREATING INFORMANT GROUPS AS CONSTITUENCIES WILL ACHIEVE A NEW DIMENSION OF COORDINATED INTEGRATED PLANNING, WHICH ADDRESSES THE REAL COMPLEXITIES OF PREPARING ENVIRONMENTAL PLANS LIKELY TO RECEIVE PUBLIC UNDERSTANDING AND SUPPORT. (ED 165 944)

AVAILABILITY: ERIC DOCUMENT REPRODUCTION SERVICE, P.O. BOX 190, ARLINGTON, VA 22210

IRIS ACCESSION NUMBER: EW004138

PUBLICATION DATE: JUL 79

TITLE: THE USE OF PLASTICS IN DISTRIBUTION SYSTEMS.

PERSONAL AUTHOR: JACKSON, RAY A.; AND OTHERS

DESCRIPTOR: *DISTRIBUTION SYSTEMS; EQUIPMENT; *PLASTIC PIPES; *PIPES; *STANDARDS; *TECHNOLOGY; *UTILITIES; *WATER MAINS; *WATER SUPPLY

DESCRIPTIVE NOTE: 373-375P.

ABSTRACT: REPORTED ARE THE RESULTS OF A SURVEY ON THE USE OF SYNTHETIC POLYMERS FOR SERVICE LINES AND MAINS IN WATER UTILITY DISTRIBUTION SYSTEMS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V71 N7

IRIS ACCESSION NUMBER: EW004139

PUBLICATION DATE: JUL 79

TITLE: PERFORMANCE SPECIFICATIONS FOR WATER METERS.

PERSONAL AUTHOR: SIMMONDS, LESLIE E.; LAVERTY, GORDON L.

DESCRIPTOR: ENGINEERING; *EQUIPMENT; RESEARCH; *STANDARDS; *UTILITIES; *WATER SUPPLY; WATER METERS
DESCRIPTIVE NOTE: 380-384P.

ABSTRACT: THIS PAPER DESCRIBES THE TEST PROCEDURE AND RESULTS USED IN WATER METER EVALUATION. THE TESTS WERE DEvised TO PROVIDE INFORMATION THAT COULD BE USED TO ESTABLISH PERFORMANCE SPECIFICATIONS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V71 N7

IRIS ACCESSION NUMBER: EW004140

PUBLICATION DATE: JUL 79

TITLE: PRECISE ANALYSIS OF TRIHALOMETHANES.

PERSONAL AUTHOR: TRUSSELL, ALBERT R; AND OTHERS

DESCRIPTOR: INSTRUMENTATION; *LABORATORY ANALYSES; *ORGANIC CHEMISTRY; PUBLIC HEALTH; *RESEARCH; *STANDARDS; WATER POLLUTION CONTROL; *WATER QUALITY; *CHEMICAL ANALYSIS; CHROMATOGRAPHY; *DRINKING WATER; *TRICHALOMETHANES; *WATER SUPPLY

DESCRIPTIVE NOTE: 385-389P.

ABSTRACT: THIS ARTICLE DISCUSSES THE LIQUID-LIQUID EXTRACTION TECHNIQUE UTILIZED FOR ANALYSIS OF

TRICHALOMETHANES IN DRINKING WATER. ANALYTICAL METHODS AND RESULTS ARE PROVIDED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V71 N7

IRIS ACCESSION NUMBER: EW004141

PUBLICATION DATE: JUL 79

TITLE: ANALYSIS OF TRIHALOMETHANES IN AQUEOUS SOLUTIONS: A COMPARATIVE STUDY.

PERSONAL AUTHOR: VARMA, M. H.; AND OTHERS

DESCRIPTOR: *LABORATORY ANALYSES; *ORGANIC CHEMISTRY; PUBLIC HEALTH; *RESEARCH; WATER POLLUTION CONTROL; *WATER QUALITY; *CHEMICAL ANALYSIS; CHROMATOGRAPHY; *DRINKING WATER; *TRICHALOMETHANES; *WATER SUPPLY

DESCRIPTIVE NOTE: 389-392P.

ABSTRACT: THIS PAPER COMPARES THE RESULTS OF CHLOROFORM EXTRACTION USING DIFFERENT SOLVENTS WITH THE VAPOR SPACE METHOD. ALSO REPORTED IS THE EFFICIENCY OF TRIHALOMETHANE EXTRACTION IN A MULTICOMPONENT SYSTEM.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V71 N7

IRIS ACCESSION NUMBER: EW004142

PUBLICATION DATE: JUL 79

TITLE: COMPARISON OF METHODS FOR DETERMINATION OF TRIHALOMETHANES IN DRINKING WATER.

PERSONAL AUTHOR: DRESSMAN, RONALD C.; AND OTHERS

DESCRIPTOR: *LABORATORY METHODS; *ORGANIC CHEMISTRY; PUBLIC HEALTH; *RESEARCH; UTILITIES; *WATER SUPPLY; WATER POLLUTION CONTROL; *CHEMICAL ANALYSES; CHROMATOGRAPHY; DRINKING WATER; *LABORATORY ANALYSES; *TRICHALOMETHANES

DESCRIPTIVE NOTE: 392-396P.

ABSTRACT: THIS ARTICLE REPORTS ON THE RESEARCH UNDERTAKEN TO COMPARE VARIOUS METHODS OF ANALYZING ORGANOHALIDES IN WATER. ADDITIONALLY THESE METHODS ARE COMPARED TO THE PURGE-AND-TRAP METHOD WITH REGARD TO QUANTITATIVE AND QUALITATIVE ACCURACY.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V71 N7

IRIS ACCESSION NUMBER: EW004143

PUBLICATION DATE: JUL 79

TITLE: SHORT-TERM BIOASSAYS FOR ENVIRONMENTAL MUTAGENS AND CARCINOGENS.

PERSONAL AUTHOR: GLATZ, BONITA A.

DESCRIPTOR: *LABORATORY TECHNIQUES; PUBLIC HEALTH; *MICROBIOLOGY; RESEARCH; UTILITIES; WATER POLLUTION CONTROL; *WATER SUPPLY; *CARCINOGENS; *CHEMICAL ANALYSES; *DRINKING WATER

DESCRIPTIVE NOTE: 396-402P.

ABSTRACT: REVIEWED IS BACKGROUND INFORMATION ON MUTAGENESIS AND CARCINOGENESIS AND THE DEVELOPMENT AND APPLICATION OF SHORT-TERM BIOASSAY PROCEDURES.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V71 N7

IRIS ACCESSION NUMBER: EW004144

PUBLICATION DATE: JUL 79

TITLE: A NEW MEMBRANE FILTER PROCEDURE FOR BACTERIAL COUNTS IN POTABLE WATER AND SWIMMING POOL SAMPLES.

PERSONAL AUTHOR: TAYLOR, RAYMOND H.; GELDREICH, EDWIN E.

DESCRIPTOR: *EQUIPMENT; *LABORATORY TECHNIQUES; *MICROBIOLOGY; PUBLIC HEALTH; *RESEARCH; TECHNOLOGY; *WATER POLLUTION CONTROL; *WATER TREATMENT; *BACTERIA; *DRINKING WATER; *DISTRIBUTION SYSTEMS; *SWIMMING POOLS

DESCRIPTIVE NOTE: 402-403P.

ABSTRACT: THIS ARTICLE DISCUSSES A NEW MICROBIOLOGY PROCEDURE THAT IS AN EASILY PERFORMED, ECONOMICAL QUALITY CONTROL MEASURE FOR WATER TREATMENT PROCESSES AND THE DISTRIBUTION SYSTEM WATER.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V71 N7

IRIS ACCESSION NUMBER: EW004168

PUBLICATION DATE: JUL 79

TITLE: RECYCLING OF TREATED WASTEWATER CAN SOLVE THE SEWAGE DISPOSAL PROBLEM FOR RURAL SERVICE STATIONS.

PERSONAL AUTHOR: CANTRELL, RICHARD D.

DESCRIPTOR: LAND USE; *MANAGEMENT; *PUBLIC HEALTH; RESEARCH; SOIL SCIENCE; *WASTE DISPOSAL; *WASTEWATER TREATMENT; *WATER POLLUTION CONTROL; *RECYCLING; *RURAL AREAS

DESCRIPTIVE NOTE: 13-18P.

ABSTRACT: SUMMARIZED ARE THE EVALUATION CRITERIA USED, DATA COLLECTION PARAMETERS, AND RESULTS OF A STUDY ON ALTERNATIVE ON-SITE WASTEWATER MANAGEMENT SYSTEMS.

AVAILABILITY: JOURNAL OF ENVIRONMENTAL HEALTH; V42 N1

IRIS ACCESSION NUMBER: EW004169

PUBLICATION DATE: JUL 79

TITLE: ACCEPTANCE CRITERIA FOR SEWAGE DISPOSAL MANAGEMENT CORPORATIONS IN IDAHO.

PERSONAL AUTHOR: SHOOK, GARY A.

DESCRIPTOR: *FACILITY GUIDELINES; *PUBLIC HEALTH; SEWAGE; *STANDARDS; *SUBURBAN AREAS; *WASTE DISPOSAL; *WASTEWATER TREATMENT; *WATER POLLUTION CONTROL; *UTILITIES; *IDAHO

DESCRIPTIVE NOTE: 19-20P.

ABSTRACT: LISTED ARE 15 POINTS WHICH EXEMPLIFY THE CRITERIA TO BE MET BY PRIVATE CORPORATIONS PROVIDING WASTE UTILITY SERVICES.

AVAILABILITY: JOURNAL OF ENVIRONMENTAL HEALTH; V42 N1

IRIS ACCESSION NUMBER: EW005085

PUBLICATION DATE: 80

TITLE: A TRAINER'S WORKBOOK IN EVALUATING THE IMPACT OF PUBLIC PROGRAMS.

PERSONAL AUTHOR: WISE, LOIS RECASCINO; MCDAVID, EILEEN

DESCRIPTOR: DESIGN; *EVALUATION; *INSTRUCTIONAL MATERIALS; MANAGEMENT; *POST SECONDARY EDUCATION; *PROGRAM EVALUATION; *PUBLIC ADMINISTRATION; *PUBLIC PROGRAMS; *TEACHING GUIDES

DESCRIPTIVE NOTE: 186P. PRICE: \$15.00

ABSTRACT: THIS TEACHER'S GUIDE PROVIDES MATERIAL FOR A COURSE OR WORKSHOP ON EVALUATING THE IMPACT OF PUBLIC PROGRAMS. TOPICS INCLUDE: EVALUATION IN PUBLIC ADMINISTRATION; THE PROGRAM GOALS; THE HYPOTHESIS; DATA COLLECTION; DATA ANALYSIS; AND, EVALUATION RESEARCH DESIGNS. EACH OF THESE ARE EXAMINED IN AN INSTRUCTIONAL UNIT WHICH INCLUDES THE LEARNING OBJECTIVE, CRITICAL ISSUES, A LEARNING ACTIVITY, MATERIALS, AND REFERENCES.

AVAILABILITY: INDIANA UNIVERSITY, NITC PUBLICATIONS, SCHOOL OF PUBLIC & ENVIRONMENTAL AFFAIRS, 400 EAST SEVENTH ST., BLOOMINGTON, IN 47405

IRIS ACCESSION NUMBER: EW006054

PUBLICATION DATE: 80

TITLE: NATIONAL ACCOMPLISHMENTS IN POLLUTION CONTROL:
1970-1980, DRAFT REPORT.

DESCRIPTOR: AIR QUALITY; *AIR POLLUTION CONTROL; COST
EFFECTIVENESS; *CASE STUDIES; *DRINKING WATER; *HAZARDOUS
MATERIALS; HEALTH; LEGISLATION; POLLUTION; REGULATIONS;
*SAFETY; *STANDARDS; *TECHNOLOGY; *WATER QUALITY; *WATER
POLLUTION CONTROL

DESCRIPTIVE NOTE: 251P.

ABSTRACT: PRESENTED ARE ACCOMPLISHMENTS OF THE PAST DECADE
THAT WERE TAKEN TO REDUCE THE ADVERSE EFFECTS OF POLLUTION.
STRESSED IS USE OF POLLUTION CONTROLS THAT MITIGATE OR
PREVENT HARM TO THE ENVIRONMENT. CONTENTS OF THE DOCUMENT
INCLUDE: (1) PROTECTING RIVERS, STREAMS, AND LAKES; (2)
TOWARD CLEANER AIR; (3) PROTECTING THE LAND; (4) PRESERVING
NATURAL SYSTEMS; (5) RESPONDING TO ENVIRONMENTAL
EMERGENCIES; AND (6) MEETING NATIONAL GOALS.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT
PRINTING OFFICE, WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW006135

PUBLICATION DATE: JUL 80

TITLE: ACID RAIN.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ACID RAIN; *BIOLOGICAL
EFFECTS; *ENVIRONMENTAL QUALITY; FOSSIL FUELS; *HEALTH;
*HAZARDOUS WASTES; *INDUSTRY; *NITROGEN; *POLLUTION;
*PRECIPITATION; *POWER PLANTS; *REGULATIONS; *RAIN;
*STANDARDS; *SAFETY; *SULFUR; *TOXIC SUBSTANCES;
*TRANSPORTATION

DESCRIPTIVE NOTE: 36P. PRICE: \$3.25; S/N 055-00-00198-7

ABSTRACT: REVIEWED IS THE EFFECT OF ACID RAIN POLLUTION AND
THE APPROACHES TAKEN TO ELIMINATE IT FROM THE ENVIRONMENT.
DISCUSSED ARE ATTEMPTS TO CONTROL EMISSIONS OF SULFUR AND
NITROGEN COMPOUNDS FROM FOSSIL FUEL POWER PLANTS,
INDUSTRIES, AND MOTOR VEHICLES.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT
PRINTING OFFICE, WASHINGTON, DC 20402

IRIS ACCESSION NUMBER: EW006137

PUBLICATION DATE: 77

TITLE: ALGAE AND WATER POLLUTION.

PERSONAL AUTHOR: PALMER, C. MERVIN; AND OTHERS

DESCRIPTOR: *ALGAE; CHLORINATION; *DRINKING WATER;

EUTROPHICATION; *ENGINEERING; FILTRATION; *HEALTH;
*OPERATIONS (WATER); *WATER POLLUTION CONTROL; *WATER
TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 124P. PRICE: \$3.50; S/N 055-001-01081-8

ABSTRACT: EXPLAINED ARE METHODS TO PREVENT OR CONTROL
PROBLEMS CAUSED BY UNDESIRABLE ALGAL GROWTH AND TO ASSIST
THOSE PEOPLE CONCERNED WITH WATER SUPPLY AND POLLUTION WITH
CONDITIONS SUITABLE FOR BENEFICIAL USE OF ALGAE FOR
POLLUTION CONTROL. ITEMS INCLUDE: (1) SIGNIFICANCE AND
IDENTIFICATION OF ALGAE; (2) ALGAE IN STREAMS, LAKES, AND
PONDS; (3) CLEAN WATER ALGAE; (4) ALGAE AND POLLUTION; (5)
ALGAE AS INDICATORS OF WATER QUALITY; AND (6) FILTER AND
SCREEN CLOGGING ALGAE.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT
PRINTING OFFICE, WASHINGTON, DC 20402

IRIS ACCESSION NUMBER: EW006164

PUBLICATION DATE: NOV 80

TITLE: COSTLY WASTEWATER TREATMENT PLANTS FAIL TO PERFORM
AS EXPECTED.

DESCRIPTOR: CONSTRUCTION COSTS; *COST EFFECTIVENESS;
*DESIGN; *EFFICIENCY; *EFFLUENTS; *ECONOMIC FACTORS;
EVALUATION; *FACILITIES; *MAINTENANCE; *OPERATIONS
(WASTEWATER); *PERFORMANCE EVALUATION; POLLUTION CONTROL;
PROBLEMS; *RECOMMENDATIONS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 66P.

ABSTRACT: THIS REPORT REVIEWS THE POOR PERFORMANCE RECORD
OF SEVERAL COSTLY WASTEWATER TREATMENT PLANTS AND SUGGESTS
WAYS TO IMPROVE CONSTRUCTION QUALITY AND REDUCE EXCESSIVE
SPENDING. CAO RECOMMENDS THAT THE CONGRESS AND THE
ADMINISTRATOR, USEPA, TEST VARIOUS ALTERNATIVES TO IMPROVE
THE CONSTRUCTION GRANTS FUNDING PROGRAM AND TO IDENTIFY: (1)
TREATMENT PLANTS EXPERIENCING SERIOUS OPERATIONAL PROBLEMS;
(2) THE EXTENT OF REPAIRS REQUIRED FOR THESE PLANTS; AND (3)
WHO WILL PAY FOR THE REPAIRS.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT
PRINTING OFFICE, WASHINGTON, DC 20402

IRIS ACCESSION NUMBER: EW006167

PUBLICATION DATE: MAR 75

TITLE: LAND USE FORMS AND THE ENVIRONMENT.

PERSONAL AUTHOR: BERRY, BRIAN J. L.

DESCRIPTOR: *AIR QUALITY; *COST EFFECTIVENESS; *COMMUNITY
PROGRAMS; *ECONOMICS; *ENVIRONMENT; *LAND USE; *MANAGEMENT;
*MEASUREMENT TECHNIQUES; *PLANNING; POLLUTANTS; *STANDARDS;
*URBAN AREAS; *WATER QUALITY

DESCRIPTIVE NOTE: 36P.

ABSTRACT: RESEARCH ON ENVIRONMENTAL MANAGEMENT, ECONOMIC ANALYSIS, ECOLOGICAL IMPACTS, COMPREHENSIVE PLANNING AND FORECASTING, AND ANALYSIS METHODOLOGIES IS PRESENTED. INCLUDED ARE TOOLS FOR DETERMINING IMPACTS OF POLICIES, ANALYSES OF ENVIRONMENTAL PLANNING TECHNIQUES AT THE REGIONAL, STATE, AND LOCAL LEVELS, AND APPROACHES TO MEASURING ENVIRONMENTAL PERCEPTIONS, AS WELL AS ANALYSIS OF ECOLOGICAL AND ECONOMIC IMPACTS OF ENVIRONMENTAL PROTECTION MEASURES.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON, DC 20402

IRIS ACCESSION NUMBER: EW006187

PUBLICATION DATE: JAN 81

TITLE: HOW TO OBTAIN FEDERAL GRANTS TO BUILD MUNICIPAL WASTEWATER TREATMENT WORKS, SECOND EDITION.

DESCRIPTOR: *CONSTRUCTION; *DESIGN; *FACILITIES; *FEDERAL ROLE; *GUIDELINES; *GRANTS; *PLANNING; *REGULATIONS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 46P. ORDER NUMBER: MCD-04

ABSTRACT: PRESENTED ARE THE EXPLANATIONS OF THE INFORMATION NEEDED BY LOCAL OFFICIALS TO OBTAIN A CONSTRUCTION GRANT FROM THE ENVIRONMENTAL PROTECTION AGENCY TO BUILD WASTEWATER TREATMENT FACILITIES. CONTENTS REFLECT: PREAPPLICATION INFORMATION; FACILITIES PLANNING; PLANS; SPECIFICATIONS AND ESTIMATES; AND CONSTRUCTION.

AVAILABILITY: GENERAL SERVICES ADMINISTRATION (GFS), CENTRALIZED MAILING LIST SERVICES, BLDG. 41, DENVER FEDERAL CENTER, DENVER, CO 80225

IRIS ACCESSION NUMBER: EW006212

PUBLICATION DATE: MAR 81

TITLE: LOS ANGELES UTILITY'S MANAGEMENT TAKES TIME AND SAVES MONEY.

PERSONAL AUTHOR: HERSCH, PAUL

DESCRIPTOR: *COSTS; *MANAGEMENT; *OPERATIONS (WATER); *PLANNING; *PERSONNEL; *UTILITIES; WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 24, 90P.

ABSTRACT: DEVELOPED IS A PROGRAM TO EFFECT SAVINGS BY ESTABLISHING DEFINITE MANHOURS, SKILL NEEDS, AND UNIFORM WORK PRACTICES. BROADENING TASK CONCEPTS AND MAINTAINING TIME DATA ARE INCLUDED IN THE MANAGEMENT SYSTEM.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N3

IRIS ACCESSION NUMBER: EW006213

PUBLICATION DATE: MAR 81

TITLE: GROUNDWATER--IN THE EIGHTIES.

PERSONAL AUTHOR: LEHR, JAY H.

DESCRIPTOR: *COSTS; *ENERGY; *GROUNDWATER; IRRIGATION; *MANAGEMENT; *NATURAL RESOURCES; *PLANNING; *WATER RESOURCES; *WATER SUPPLY; *WATER WELLS; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 30-33P.

ABSTRACT: DISCUSSED IS THE EXPANSION OF GROUNDWATER USE AS A POTENTIAL MAJOR RESOURCE. USE OF GROUNDWATER RANGES FROM A FUEL SOURCE TO A WATER SOURCE. MANY OF THE USES CAN NOW BE MARKETED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N3

IRIS ACCESSION NUMBER: EW006214

PUBLICATION DATE: MAR 81

TITLE: CONTROL SETTLING TO OPTIMIZE WATER FILTRATION.

PERSONAL AUTHOR: FULTON, GEORGE P.

DESCRIPTOR: *COSTS; *DESIGN; *EQUIPMENT; ENGINEERING; *FILTRATION; FLOW MEASUREMENT; *OPERATIONS (WATER); *SETTLING; *TANKS (SETTLING); *WATER TREATMENT; *WATER SUPPLY; *WATER QUALITY

DESCRIPTIVE NOTE: 34, 39-40, 101P.

ABSTRACT: EVALUATED ARE COMBINATIONS OF PRE-SETTLING AND GRANULAR FILTRATION FACILITIES FOR THE TREATMENT OF WATER SUPPLY. PLANTS DESIGNED FOR ABOUT 50 PERCENT SUSPENDED SOLIDS REMOVAL IN SETTLING WITH THE REMAINING 50 PERCENT REMOVED IN FILTRATION ARE DISCUSSED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N3

IRIS ACCESSION NUMBER: EW006215

PUBLICATION DATE: MAR 81

TITLE: IS THIS THE DECADE OF FISHABLE, SWIMMABLE WATER--OR WILL WE SEE ANOTHER FAD FADING.

PERSONAL AUTHOR: GIBBS, CHARLES V.

DESCRIPTOR: *COSTS; *DESIGN; *FACILITIES; *FINANCING; *LEGISLATION; LAND USE; *MANAGEMENT; *NONPOINT POLLUTION; *PLANNING; *WASTEWATER TREATMENT; *WATER SUPPLY; *WATER QUALITY; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 42-44, 47, 101P.

ABSTRACT: STRESSED ARE COMMUNITY BASED APPROACHES TO WATER QUALITY MANAGEMENT PROGRAMS. PRIORITIES DISCUSSED INCLUDE THE FUNDING OF MUNICIPAL WASTES TREATMENT, BETTER MANAGEMENT OF LOCAL DOLLARS, FLEXIBLE APPROACHES TO DESIGN OBJECTIVES, AND CONTROLLING NON-POINT POLLUTION.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N3

IRIS ACCESSION NUMBER: EW006216

PUBLICATION DATE: MAR 81

TITLE: ASBESTOS-CEMENT MATERIALS USED IN WATER SUPPLY.

PERSONAL AUTHOR: MILLETTE, J. R.; AND OTHERS

DESCRIPTOR: *ASBESTOS-CEMENT PIPES; *ASBESTOS;
*CARCINOGENS; *CASE STUDIES; *CORROSION; *DRINKING WATER;
*HAZARDOUS MATERIALS; HEALTH; *PUBLIC HEALTH; PIPES; *WATER
PIPES; *WATER SUPPLY; *WATER QUALITY; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: 48, 51, 60, 97P.

ABSTRACT: ADDRESSED ARE THE EFFECTS OF EXPOSURE TO ASBESTOS FIBERS IN DRINKING WATER AS A RESULT OF THE CORROSION OF ASBESTOS-CEMENT PRODUCTS. THE TREATMENT OF WATER AND COATING THE PIPE TO PREVENT FURTHER RELEASE OF FIBERS ARE DISCUSSED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N3

IRIS ACCESSION NUMBER: EW006217

PUBLICATION DATE: MAR 81

TITLE: LIMITED-SITE PUMPING STATION PROVIDES PROTECTION FROM BASEMENT FLOODING.

PERSONAL AUTHOR: MYROLD, CLARENCE W.

DESCRIPTOR: *COSTS; *COMBINED SEWERS; *DESIGN;
*ENGINEERING; *EQUIPMENT; *FACILITIES; *FLOODING;
*MAINTENANCE; *MANAGEMENT; *PUMPING STATIONS; *PLANNING;
SURFACE RUNOFF; *SANITARY SEWERS; SEWERS; *STORM SEWERS;
*WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 56, 104P.

ABSTRACT: A TOTAL MASTER STORM RELIEF SYSTEM WHICH INCLUDES TUNNELED RELIEF INCEPTORS, A WEIR CONTROL SYSTEM, AND A RETENTION BASIN IS EVALUATED. COMPARED ARE THE EFFICIENCIES OF THE COMBINED SEWER SYSTEMS AS OPPOSED TO THE COMPLETE SEPARATION OF SANITARY AND STORM FLOWS.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N3

IRIS ACCESSION NUMBER: EW006218

PUBLICATION DATE: MAR 81

TITLE: INTEGRATION BRINGS BETTER USE OF WATER RESOURCES.

PERSONAL AUTHOR: STOTT, P. F.

DESCRIPTOR: *COSTS; COMMUNITY SERVICES; *COOPERATIVE
PLANNING; *DRINKING WATER; *MANAGEMENT; *NATURAL RESOURCES;
*PLANNING; UTILITIES; *WATER SUPPLY; *WATER QUALITY;
*WASTEWATER TREATMENT; *WATER TREATMENT; *WATER RESOURCES

DESCRIPTIVE NOTE: 58-59P.

ABSTRACT: DISCUSSED IS THE INTEGRATED DEVELOPMENT AND MANAGEMENT OF EVERY ASPECT OF THE HYDRAULIC CYCLE UNDER A MULTIPURPOSE WATER MANAGEMENT PROGRAM. THE REORGANIZATION OF COORDINATE PLANNING AND DEVELOPMENT OF RESOURCES ON A MORE ECONOMICAL AND RATIONAL BASIS IS ADDRESSED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N3

IRIS ACCESSION NUMBER: EW006219

PUBLICATION DATE: MAR 81

TITLE: OUTLOOK FOR WATER AND WASTEWATER SYSTEMS, PROCESSES, AND EQUIPMENT. PART 2.

PERSONAL AUTHOR: FILBERT, JOHN W.; AND OTHERS
DESCRIPTOR: *COSTS; *EQUIPMENT; *ENGINEERING; ENERGY;
*FACILITIES; *HAZARDOUS WASTES; *MANAGEMENT; *OPERATIONS
(WASTEWATER); REGULATIONS; RECYCLING; SLUDGE; *WATER SUPPLY;
*WATER TREATMENT; *WATER QUALITY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 62-69, 90P.

ABSTRACT: ADDRESSED IS THE FUTURE FOR WATER SUPPLY SYSTEMS WHERE QUALITY AND ENERGY EFFICIENCY ARE INCLUDED. EQUIPMENT AND SYSTEMS APPROPRIATE TO SLUDGE THICKENING, CONDITIONING, DEWATERING, AND REDUCTION PROCESSES OR WHERE IT CAN BE INCORPORATED INTO ENERGY AND LABOR CONSERVING INSTRUMENTATION AND CONTROL SYSTEMS ARE DISCUSSED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N3

IRIS ACCESSION NUMBER: EW006220

PUBLICATION DATE: MAR 81

TITLE: THE EPA VALUE ENGINEERING PROGRAM.

PERSONAL AUTHOR: WILLIAMS, ROBERT B.; FARMER, HAIG

DESCRIPTOR: *COSTS; *COOPERATIVE PLANNING; *CONSTRUCTION;
*DESIGN; *FACILITIES; *MANAGEMENT; *PLANNING; *VALUE
ENGINEERING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 70-71, 102-103P.

ABSTRACT: EVALUATED IS THE USE OF VALUE ENGINEERING AS A MECHANISM TO ENHANCE THE DESIGN OF WASTEWATER TREATMENT FACILITIES BY PROVIDING THE PROJECT DESIGNER WITH THE KNOWLEDGE AND EXPERIENCES OF INDIVIDUALS TO OPTIMIZE PROJECT DESIGN.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N3

IRIS ACCESSION NUMBER: EW006221

PUBLICATION DATE: MAR 81

TITLE: MANCHESTER, CONNECTICUT'S INFORMATION COLLECTION AND MANAGEMENT SYSTEM FOR WASTEWATER TREATMENT.

PERSONAL AUTHOR: SCHAAF, DICK VANDER

DESCRIPTOR: *COMPUTER APPLICATIONS; COMPUTERS; *DATA COLLECTION; *DESIGN; *EQUIPMENT; *MANAGEMENT; *MONITORING; *OPERATIONS (WASTEWATER); *WASTEWATER TREATMENT; *WATER SUPPLY; *WATER QUALITY

DESCRIPTIVE NOTE: 72P.

ABSTRACT: EVALUATED IS THE USE OF A DIGITALLY BASED DATA LOGGING SYSTEM FOR WASTEWATER TREATMENT FACILITIES. THE COLLECTION, MANAGEMENT, AND REDUCTION OF DATA ARE DISCUSSED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N3

IRIS ACCESSION NUMBER: EW006222

PUBLICATION DATE: MAR 81

TITLE: SMALL WATER SYSTEMS--WHAT CAN GOVERNMENT DO FOR THEM?

PERSONAL AUTHOR: LEVIN, ALAN; HANSON, HUGH F.

DESCRIPTOR: *EDUCATIONAL NEEDS; GOVERNMENT ROLE; *MANAGEMENT; *PLANNING; REGULATIONS; RURAL AREAS; *SMALL WATER SYSTEMS; *UTILITIES; *WATER SUPPLY; *WATER TREATMENT; *WATER RESOURCES

DESCRIPTIVE NOTE: 77-78, 98-99P.

ABSTRACT: STRESSED IS THE NEED FOR ALL LEVELS OF GOVERNMENT TO ADDRESS THE PROBLEMS AND ENSURE THE QUALITY OF THE WATER SUPPLY. THE IMPROVEMENT OF SMALL WATER SYSTEMS THROUGH THE DEVELOPMENT AND IMPLEMENTATION OF LEGISLATION, TECHNOLOGY, ANALYTICAL METHODS, AND EDUCATIONAL AND TREATMENT TECHNIQUES IS ADDRESSED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N3

IRIS ACCESSION NUMBER: EW006223

PUBLICATION DATE: MAR 81

TITLE: SELECTING AN O&M CONSULTANT FOR WASTEWATER TREATMENT FACILITIES.

PERSONAL AUTHOR: MURPHY, DENNIS J.; AND OTHERS

DESCRIPTOR: *CONSULTANTS; *ENGINEERING; *EQUIPMENT; *MAINTENANCE; *MANAGEMENT; *OPERATIONS (WASTEWATER); *PLANNING; *TRAINING; *TROUBLESHOOTING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 85-86P.

ABSTRACT: DISCUSSED ARE THE CRITERIA REQUIRED TO ESTABLISH A STABILIZED, ROUTINELY CONTROLLED WASTEWATER TREATMENT FACILITY WHICH WILL SATISFY LOCAL, STATE, AND FEDERAL EFFLUENT LIMITATIONS. THE QUALIFICATIONS NEEDED BY AN OPERATION AND MAINTENANCE CONSULTANT TO BRIDGE DESIGN AND OPERATION OF THE PLANT ARE DESCRIBED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N3

IRIS ACCESSION NUMBER: EW006224

PUBLICATION DATE: MAR 81

TITLE: MODERN MANAGEMENT TECHNIQUES - PART II A--CASE HISTORY OF PRODUCTION IMPROVEMENT.

PERSONAL AUTHOR: THOMPSON, GARY S.; MCCOY, THOMAS G.

DESCRIPTOR: *AUDITS; *COSTS; *EVALUATION; *FIELD STUDIES; *MANAGEMENT; *PERSONNEL; *OPERATIONS AUDIT; *UTILITIES; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 88, 100P.

ABSTRACT: REVIEWED IS AN OPERATION AUDIT OF THE FIELD OPERATIONS FOR A MUNICIPAL WATER AND SEWAGE UTILITIES DEPARTMENT. IDENTIFICATION OF PROBLEMS THROUGH EXAMINATION OF JOB SITE WORK METHODS, PROCEDURES, AND EQUIPMENT AS WELL AS WORK GROUP ORGANIZATION AND PERSONNEL IS DISCUSSED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N3

IRIS ACCESSION NUMBER: EW006266

PUBLICATION DATE: 79

TITLE: URBAN SOIL AND WATER MANAGEMENT.

PERSONAL AUTHOR: SCHMIDT, STEVEN D.

DESCRIPTOR: *ENVIRONMENTAL QUALITY; *ENVIRONMENTAL PROBLEMS; *INSTRUCTIONAL MATERIALS; LAND USE; *MANAGEMENT; *PLANNING; *POST SECONDARY EDUCATION; *SEDIMENTATION; *SOIL; *WATER SUPPLY; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 147P. PRICE: \$6.00; E1290

ABSTRACT: DISCUSSED IS THE RELATION OF URBAN WATER AND SOIL RESOURCES TO ENVIRONMENTAL QUALITY. CONTENTS INCLUDE WATER RESOURCES AND ENVIRONMENTAL PROBLEMS AND SOIL RESOURCES AND ENVIRONMENTAL PROBLEMS.

AVAILABILITY: UNIVERSITY OF WISCONSIN - MADISON, WISCONSIN VOCATIONAL STUDIES CENTER, 964 EDUCATIONAL SCIENCES BLDG., 1025 WEST JOHNSON STREET, MADISON, WI 53706

IRIS ACCESSION NUMBER: EW006278

PUBLICATION DATE: 75

TITLE: ACTIVATED SLUDGE PROCESS CONTROL.

DESCRIPTOR: *ACTIVATED SLUDGE; *EQUIPMENT; *FACILITIES; *OPERATIONS (WASTEWATER); *SLUDGE; SUSPENDED SOLIDS; *TROUBLE SHOOTING; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 73P.

ABSTRACT: DISCUSSED ARE THE VARIATIONS OF THE ACTIVATED SLUDGE PROCESS IN WASTEWATER TREATMENT OPERATIONS. PROCESSES INCLUDE CONTACT STABILIZATION, EXTENDED AERATION, AND STEP FEED PROCESS. CONTENTS INCLUDE: (1) PROCESS MECHANICS; (2) FORMATION OF ACTIVATED SLUDGE; (3) TYPES OF SLUDGE; (4) UNIT DESCRIPTION; (5) FACTORS AFFECTING OPERATION; (6) PROCESS MODIFICATIONS; (7) TYPICAL ACTIVATED SLUDGE DESIGN PARAMETERS; (8) CONTROL CALCULATIONS; AND (9) OPERATIONAL TROUBLE SHOOTING.

AVAILABILITY: COMMONWEALTH OF VIRGINIA, STATE WATER CONTROL BOARD, 2111 NO. HAMILTON STREET, RICHMOND, VA 23230

IRIS ACCESSION NUMBER: EW006313

TITLE: AN AID FOR THE TRAINING EVALUATOR.

DESCRIPTOR: *ADMINISTRATIVE GUIDES; *EVALUATION; *MANAGEMENT; *POST SECONDARY EDUCATION; PERSONNEL; *PROGRAM EVALUATION; *TRAINING GUIDES; *TRAINING

DESCRIPTIVE NOTE: 3P. FREE OF CHARGE.

ABSTRACT: PRESENTED IS AN AID FOR TRAINERS THAT ESTIMATES THE EFFECTIVENESS OF CLASSROOM AND ON-JOB PERFORMANCE OF THE TRAINEES AND STAFF.

AVAILABILITY: U.S. OFFICE OF PERSONNEL MANAGEMENT, TRAINING INFORMATION, BUREAU, WED, P. O. BOX 14100, WASHINGTON, DC 20044

IRIS ACCESSION NUMBER: EW006315

TITLE: TRAINING IMPROVED PERFORMANCE - VALUE MODEL I WORKBOOK.

DESCRIPTOR: COST EFFECTIVENESS; *EVALUATION; *INSTRUCTIONAL MATERIALS; *INDIVIDUALIZED INSTRUCTION; *JOB SKILLS; *MANAGEMENT; *POST SECONDARY EDUCATION; *PROGRAMED INSTRUCTION; *TEACHING GUIDES; TEACHING TECHNIQUES; *TRAINING; TRAINING PROGRAMS; WORKSHEETS

DESCRIPTIVE NOTE: 43P. FREE OF CHARGE.

ABSTRACT: THIS IS A MANUAL TO ENABLE MANAGERS TO IMPROVE TRAINING TECHNIQUES FOR GOVERNMENT OPERATIONS AND FOR DESIGNING ALTERNATE APPROACHES FOR EVALUATING TRAINING VALUE.

AVAILABILITY: US OFFICE OF PERSONNEL MANAGEMENT, TRAINING INFORMATION BUREAU, WED, P. O. BOX 14100, WASHINGTON, DC 20044

IRIS ACCESSION NUMBER: EW006323

PUBLICATION DATE: MAR 77

TITLE: ABSTRACTS OF SELECTED MANAGEMENT TRAINING EVALUATIONS.

PERSONAL AUTHOR: CAST, ILENE

DESCRIPTOR: *ABSTRACTS; *CASE STUDIES; *EVALUATION; *GUIDELINES; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; *POST SECONDARY EDUCATION; PROGRAM DESCRIPTIONS; *TRAINING

DESCRIPTIVE NOTE: 31P.

ABSTRACT: DESCRIBED ARE MANAGEMENT TRAINING PROGRAMS TO ASSIST EVALUATORS WITH ASSESSMENT OF THEIR OWN SYSTEMS.

AVAILABILITY: U.S. OFFICE OF PERSONNEL MANAGEMENT, TRAINING INFORMATION BUREAU, WED, P. O. BOX 14100, WASHINGTON, DC 20044

IRIS ACCESSION NUMBER: EW006329

PUBLICATION DATE: AUG 80

TITLE: POLLUTION DETECTION (JUN 70 - MAY 80), (CITATIONS FROM THE ENGINEERING INDEX DATA BASE).

DESCRIPTOR: ANALYTICAL TECHNIQUES; ABSTRACTS; AIR POLLUTION; *BIBLIOGRAPHIES; EQUIPMENT; *OIL POLLUTION; *POLLUTANTS; *RESEARCH REVIEWS; *WATER POLLUTION

DESCRIPTIVE NOTE: 34P. PDB0-857972

ABSTRACT: RESEARCH STUDIES AND ARTICLES CITED IN THIS BIBLIOGRAPHY DESCRIBE THE METHODS, EQUIPMENT, AND TECHNOLOGY USED IN THE DETECTION AND MEASUREMENT OF VARIOUS TYPES OF

ENVIRONMENTAL POLLUTANTS. CONTAINS 34 CITATIONS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006339

PUBLICATION DATE: AUG 80

TITLE: DESIGN HANDBOOK FOR AUTOMATION OF ACTIVATED SLUDGE
WASTEWATER TREATMENT PLANTS.

PERSONAL AUTHOR: MANNING, ALAN W.; DOBS, DAVID M.

DESCRIPTOR: *ACTIVATED SLUDGE; AUTOMATIC CONTROL; *DESIGN;
*EQUIPMENT; *FACILITIES; *INSTRUCTIONAL MATERIALS;
*OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION;
*PROCESS CONTROL; *SLUDGE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 411P. PB81-118382

ABSTRACT: THIS REPORT IS A SYSTEMS ENGINEERING HANDBOOK FOR
THE AUTOMATION OF ACTIVATED SLUDGE WASTEWATER TREATMENT
PROCESSES. PROCESS CONTROL THEORY AND APPLICATION ARE
DISCUSSED TO ACQUAINT THE READER WITH TERMINOLOGY AND
FUNDAMENTALS. SUCCESSFUL UNIT PROCESS CONTROL STRATEGIES
CURRENTLY IN USE ARE DISCUSSED. ALTERNATIVE METHODS OF
CONTROL IMPLEMENTATION ARE PRESENTED WHERE OTHER
CONSIDERATIONS SUCH AS RELIABILITY OR FLEXIBILITY ARE
IMPORTANT. A METHOD FOR PREPARING A COST EFFECTIVE ANALYSIS
IS DETAILED THROUGH THE USE OF EXAMPLES. CURRENTLY AVAILABLE
INSTRUMENTATION IS REVIEWED TO SERVE AS A GUIDE FOR THE
SELECTION OF INSTRUMENTS FOR SPECIFIC APPLICATIONS. THE
DESIGN GUIDE SECTION REVIEWS SOME OF THE ASPECTS OF CONTROL
SYSTEM DESIGN AND INCLUDES EXAMPLES OF DOCUMENTATION
REQUIRED TO CONVEY THE ENGINEER'S AND USER'S REQUIREMENTS.
THE CONCLUDING SECTION PRESENTS RECOMMENDATIONS FOR FURTHER
STUDIES WHICH WILL ADVANCE THE APPLICATION OF AUTOMATION IN
WASTEWATER TREATMENT.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006374

PUBLICATION DATE: 80

TITLE: HAZARDOUS WASTE SITES IN THE UNITED STATES.

PERSONAL AUTHOR: PISHDADAZAR, H.; MOCHISSI, A. A.

DESCRIPTOR: CHEMICALS; *DISPOSAL SITES; *HAZARDOUS WASTES;
*INDUSTRIAL WASTES; *LAND USE; *MANAGEMENT; *POLLUTION;
*TOXIC SUBSTANCES; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 161-309P.

ABSTRACT: PRESENTED IS A LISTING OF ALL KNOWN HAZARDOUS
WASTES SITES IN THE UNITED STATES. RELEVANT DATA ARE
INCLUDED ON THE LOCATION OF THE WASTE SITE ALONG WITH THE

QUANTITY AND NATURE OF THE WASTES AS WELL AS THE DISPOSAL
TECHNIQUE.

AVAILABILITY: NUCLEAR CHEMICAL WASTE MANAGEMENT, V1 NOS. 3
8 4

IRIS ACCESSION NUMBER: EW006384

TITLE: CONTACT: TOXICS GUIDE TO SPECIALISTS ON TOXIC
SUBSTANCES.

PERSONAL AUTHOR: PENBERTHY, RICHARD

DESCRIPTOR: *DIRECTORIES; *HAZARDOUS WASTES; INDUSTRIAL
WASTES; LEGISLATION; *PUBLIC HEALTH; PESTICIDES;
*REGULATIONS; SAFETY; *TOXIC SUBSTANCES; TRANSPORTATION;
*WASTE DISPOSAL

DESCRIPTIVE NOTE: 110P. PRICE: \$49.50 FOR CORPORATIONS
AND GOVERNMENT; \$37.50 FOR NON-PROFIT ORGANIZATIONS

ABSTRACT: PROVIDED ARE THE NAMES, ADDRESSES, TELEPHONE
NUMBERS, AND PROFESSIONAL PROFILES OF SPECIALISTS INVOLVED
IN THE MANUFACTURE, HANDLING, AND DISPOSAL OF TOXIC
SUBSTANCES, AS WELL AS THEIR SOCIAL, ECONOMIC, AND
ENVIRONMENTAL IMPACTS.

AVAILABILITY: WORLD ENVIRONMENT CENTER, UNA-USA, 300 EAST
42ND STREET, NEW YORK, NY 10017

IRIS ACCESSION NUMBER: EW006419

PUBLICATION DATE: MAY 81

TITLE: WATER REUSE - LEARNING ABOUT THE EUROPEAN
EXPERIENCE.

PERSONAL AUTHOR: MILLER, STANTON

DESCRIPTOR: BIOLOGICAL TREATMENT; CHEMICAL TREATMENT;
*DRINKING WATER; FILTRATION; *HEALTH; *OPERATIONS
(WASTEWATER); PUBLIC HEALTH; *RECYCLING; *WATER TREATMENT;
*WATER QUALITY; *WASTEWATER TREATMENT; *WATER REUSE

DESCRIPTIVE NOTE: 499-501P.

ABSTRACT: DISCUSSED ARE PROBLEMS OF PROVIDING SAFE DRINKING
WATER FOR INHABITANTS OF INDUSTRIALIZED COUNTRIES BY
EMPLOYING VARIOUS TREATMENT METHODS. THE INCREASING DEGREE
OF REUSE HAS INITIATED CONCERN OVER ITS POSSIBLE EFFECTS ON
HUMAN HEALTH.

AVAILABILITY: ENVIRONMENTAL SCIENCE & TECHNOLOGY, V15 N6

IRIS ACCESSION NUMBER: EW006420
PUBLICATION DATE: MAY 81

TITLE: ACTIVATED CARBON - THE DILEMMA FACING ITS USE.

PERSONAL AUTHOR: MILLER, STANTON

DESCRIPTOR: ACTIVATED CARBON; *COST EFFECTIVENESS;
*OPERATIONS (WATER); *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 502P.

ABSTRACT: DISCUSSED IS THE USE OF ACTIVATED CARBON TO TREAT WASTEWATER BASED ON PARAMETERS OF AN INDIVIDUAL SYSTEM AS OPPOSED TO GENERALIZED CRITERIA. PROVEN MODELING TECHNIQUES SUGGEST THE ABSORBER DESIGN FOR POLLUTANT TREATMENTS SHOULD WORK.

AVAILABILITY: ENVIRONMENTAL SCIENCE & TECHNOLOGY, V15 N6

IRIS ACCESSION NUMBER: EW006422

PUBLICATION DATE: MAY 81

TITLE: WATER LABORATORY CERTIFICATION - ADEQUATE STAFF, FUNDING, AND TRAINING AND CONSISTENT PRACTICES NATIONWIDE ARE NEEDED.

PERSONAL AUTHOR: GREENBERG, ARNOLD E.; HAUSLER, WILLIAM J., JR.

DESCRIPTOR: *COST EFFECTIVENESS; *DRINKING WATER;
*EDUCATIONAL NEEDS; *FUNDING; *FINANCING; *LABORATORY
PROCEDURES; *MANAGEMENT; *OPERATIONS (WATER); *PERSONNEL;
REGULATIONS; *TRAINING; *TRAINING NEEDS; *WATER ANALYSIS;
*WATER QUALITY; *WATER LABORATORY CERTIFICATION

DESCRIPTIVE NOTE: 520-522P.

ABSTRACT: EXAMINED IS THE NATIONWIDE NEED OF ADEQUATE STAFF, FUNDING, TRAINING AND CONSISTENT PRACTICES TO SUPPORT WATER LABORATORY CERTIFICATION PROGRAMS. COMPARISONS OF EXISTING LABORATORIES ARE REVIEWED TO IDENTIFY AREAS OF NEEDED IMPROVEMENT FOR WATER QUALITY ASSESSMENT.

AVAILABILITY: ENVIRONMENTAL SCIENCE & TECHNOLOGY, V15 N6

IRIS ACCESSION NUMBER: EW006449

PUBLICATION DATE: 73

TITLE: OBTAINING CITIZEN FEEDBACK: THE APPLICATION OF CITIZEN SURVEYS TO LOCAL GOVERNMENTS.

PERSONAL AUTHOR: WEBB, KENNETH; HATRY, HARRY P.

DESCRIPTOR: COMMUNITY SERVICES; *CITIZEN PARTICIPATION;
*MANAGEMENT; *PLANNING; *PUBLIC OPINION; *RESEARCH; *SURVEYS

DESCRIPTIVE NOTE: 105P.

ABSTRACT: EXPLORED IS THE POTENTIAL USEFULNESS OF CITIZEN SURVEYS TO CITY AND COUNTY GOVERNMENTS, ESPECIALLY THOSE UNDERTAKEN ON A REGULAR BASIS. CONTENTS INCLUDE: (1) USES OF CITIZEN SURVEYS; (2) DANGERS AND PITFALLS IN CITIZEN SURVEYS; (3) SURVEY PROCEDURES; (4) COSTS AND FUNDING SOURCES; AND (5) ORGANIZATIONAL OPTIONS FOR UNDERTAKING SURVEYS.

AVAILABILITY: URBAN INSTITUTE PRESS, FULFILLMENT DIVISION, 2100 "M" STREET, NW, WASHINGTON, DC 20037

IRIS ACCESSION NUMBER: EW006452

PUBLICATION DATE: AUG 80

TITLE: AMERICAN CONSULTING ENGINEERS COUNCIL DIRECTORY.

DESCRIPTOR: *CONSULTING ENGINEERS; *DIRECTORIES;
*ENGINEERS; *ENGINEERING; ORGANIZATIONS

DESCRIPTIVE NOTE: 375P. PRICE: \$25.00

ABSTRACT: THIS STATE-BY-STATE DIRECTORY IS A REFERENCE TO CONSULTING ENGINEERS AND EXPLAINS THE ORGANIZATION, AIMS, AND ACTIVITIES OF THE COUNCIL. COMPILED IS A COMPLETE LIST OF ALL COMMITTEES, OFFICERS, PAST PRESIDENTS, AND ACEC ORGANIZATIONAL DOCUMENTS.

AVAILABILITY: AMERICAN CONSULTING ENGINEERS COUNCIL, 1015 15TH STREET, N.W., SUITE 802, WASHINGTON, DC 20005

IRIS ACCESSION NUMBER: EW006461

PUBLICATION DATE: 81

TITLE: ALL ABOUT PERSONAL COMPUTERS.

DESCRIPTOR: *COMPUTERS; *COMPARATIVE ANALYSIS; *EVALUATION;
*EQUIPMENT EVALUATION; *MICROCOMPUTERS; *REFERENCE MATERIALS

DESCRIPTIVE NOTE: PRICE: \$25.00

ABSTRACT: THIS REPORT REVIEWS 22 OF THE TOP SELLING PERSONAL COMPUTERS IN TERMS OF BACKGROUND INFORMATION, SYSTEM CHARACTERISTICS, HARDWARE/PACKAGING, SOFTWARE, AND SUPPORT SERVICES. IN ADDITION, INFORMATION IS PROVIDED ON VARIOUS ASPECTS OF THE EXPANDING FIELD OF PERSONAL COMPUTERS AND A DETAILED LIST OF DIRECTORY SERVICES IS INCLUDED.

AVAILABILITY: DATAPRO RESEARCH CORPORATION, 1805 UNDERWOOD BLVD., DELRAN, NJ 08075

IRIS ACCESSION NUMBER: EW006565

PUBLICATION DATE: 81

TITLE: ANALYTICAL MEASUREMENTS AND INSTRUMENTATION FOR PROCESS AND POLLUTION CONTROL.

PERSONAL AUTHOR: CHEREMISINOFF, PAUL N.; PERLIS, HARLAN J.

DESCRIPTOR: *AIR POLLUTION CONTROL; *ANALYTICAL TECHNIQUES; *ANALYTICAL CHEMISTRY; *INSTRUCTIONAL MATERIALS; *INDUSTRIAL TECHNOLOGY; *INDUSTRY; *INSTRUMENTATION; *LABORATORY PROCEDURES; *MEASUREMENT TECHNIQUES; MATHEMATICAL MODELS; *MONITORING; *POST SECONDARY EDUCATION; POLLUTION; *SAFETY; *SAMPLING; WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 496P. PRICE: \$49.95

ABSTRACT: DISCUSSED IS A WIDE VARIETY OF INSTRUMENTATION AND MEASUREMENT PROBLEMS IN INDUSTRIAL PROCESSES AND ENVIRONMENTAL CONTROLS. CONTENTS INCLUDED ARE: (1) PH MEASUREMENT INSTRUMENTATION; (2) LUMINESCENCE SPECTROMETRY; (3) APPLICATIONS OF LIQUID CHROMATOGRAPHY; (4) X-RAY DIFFRACTION TECHNIQUES AND INSTRUMENTATION; (5) METHOD FOR DETERMINATION OF HEAVY METAL DISTRIBUTIONS IN MARINE SEDIMENTS; (6) PNEUMATIC INSTRUMENTS; AND (7) FIBER OPTICS IN INFRARED INSTRUMENTATION AND CONTROL.

AVAILABILITY: ANN ARBOR SCIENCE PUBLISHERS, C/O BUTTERWORTH PUBLISHERS, INC., 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW006566

PUBLICATION DATE: 81

TITLE: CHEMISTRY IN WATER REUSE, VOLUME 1.

PERSONAL AUTHOR: COOPER, WILLIAM J.

DESCRIPTOR: AGRICULTURE; *ANALYTICAL TECHNIQUES; BIOLOGICAL TREATMENT; *CHEMICAL ANALYSIS; *CHEMISTRY; DISINFECTION; *INDUSTRIAL WASTES; INDUSTRIAL TECHNOLOGY; *INSTRUCTIONAL MATERIALS; METALS; MONITORING; *POST SECONDARY EDUCATION; *RECYCLING; SAMPLING; SWIMMING POOLS; *TOXICITY; *WATER TREATMENT; *WASTEWATER TREATMENT; *WATER QUALITY; *WATER REUSE

DESCRIPTIVE NOTE: 557P. PRICE: \$39.95

ABSTRACT: THE FIRST OF A TWO PART SERIES STRESSES THE USE OF CHEMISTRY AND CHEMICAL ANALYSIS IN WATER USE. ADEQUATE QUALITY ASSURANCE PROGRAMS ARE DEVELOPED TO ENSURE THE CHEMICAL QUALITY OF WATER INTENDED FOR REUSE FOR INDUSTRY, AGRICULTURE, MUNICIPALITIES, AND ESPECIALLY THE NONPOTABLE-WATER USERS. TOPICS INCLUDED ARE: (1) MONITORING AND CONTROL; (2) QUALITY ASSURANCE; (3) TOXIC CHEMICALS; (4) REMOVAL BY MEMBRANE PROCESSES; (5) DISINFECTION; AND (6) SWIMMING POOLS.

AVAILABILITY: ANN ARBOR SCIENCE PUBLISHERS, C/O BUTTERWORTH PUBLISHERS, INC., 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW006567

PUBLICATION DATE: 81

TITLE: CHEMISTRY OF NATURAL WATERS.

PERSONAL AUTHOR: FAUST, SAMUEL D.; ALY, OSMAN M.

DESCRIPTOR: *ACIDITY; *ANALYTICAL TECHNIQUES; CHEMISTRY; *CHEMICAL ANALYSIS; *CHEMICAL REACTIONS; *CHEMICAL EQUILIBRIUM; *INSTRUCTIONAL MATERIALS; METALS; MODELS; *POLLUTION; *THERMODYNAMICS; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 400P. PRICE: \$40.00

ABSTRACT: DOCUMENTED ARE THE INFLUENCES OF NATURAL CHEMICAL FACTORS ON WATER QUALITY OF GROUNDWATER, SURFACE WATER, AND OCEANIC WATERS. WATER QUALITY DATA IS PROVIDED TO ASSIST IN THE MANAGEMENT AND DESIGN OF WATER-RELATED PROJECTS. CONTENTS INCLUDED ARE: (1) CHEMICAL COMPOSITION OF NATURAL WATERS; (2) CHEMICAL EQUILIBRIA AND THERMODYNAMICS; (3) ACIDITY, ALKALINITY, AND PH; (4) OXIDATION-REDUCTION CONDITIONS OF NATURAL WATERS AND ENVIRONMENTS; (5) CHEMICAL WEATHERING REACTIONS; (6) CHEMICAL EQUILIBRIUM MODELS; AND (7) SPECIFIC METALS IN AQUATIC ENVIRONMENTS.

AVAILABILITY: ANN ARBOR SCIENCE PUBLISHERS, C/O BUTTERWORTH PUBLISHERS, INC., 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW006571

PUBLICATION DATE: 81

TITLE: ATMOSPHERIC POLLUTANTS IN NATURAL WATERS.

PERSONAL AUTHOR: EISENREICH, STEVEN J.

DESCRIPTOR: *AIR POLLUTION CONTROL; CHEMISTRY; *CHEMICAL ANALYSIS; HEAVY METALS; HEALTH; *METALS; *ORGANIC CHEMISTRY; *POLLUTION; POLLUTANTS; *WATER POLLUTION; *WATER QUALITY; *WATER TREATMENT; *WATER ANALYSIS

DESCRIPTIVE NOTE: 512P. PRICE: \$40.00

ABSTRACT: DISCUSSED IS THE QUALITATIVE AND QUANTITATIVE UNDERSTANDING OF ATMOSPHERIC INPUT OF POLLUTANTS TO NATURAL WATERS, ITS IMPACT ON WATER QUALITY AND AN INTUITIVE VIEW OF THE IMPORTANT ATMOSPHERIC DEPOSITION PROCESSES. TOPICS INCLUDED ARE: (1) MODELING OF ATMOSPHERIC REMOVAL PROCESSES; (2) COMPOSITION AND ENRICHMENT AT THE AIR-WATER INTERFACE; (3) NUTRIENT INPUT; (4) INPUT OF METALS; AND (5) ANTHROPOGENIC ORGANIC INPUT.

AVAILABILITY: ANN ARBOR SCIENCE PUBLISHERS, C/O BUTTERWORTH PUBLISHERS, INC., 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW006572

PUBLICATION DATE: 80

TITLE: WATER SYSTEMS HANDBOOK, 7TH EDITION.

DESCRIPTOR: *ENGINEERING; *EQUIPMENT; *GROUNDWATER;
*MAINTENANCE; *OPERATIONS (WATER); *PUMPS; PIPES (WATER);
*RURAL AREAS; *WATER (DRINKING); *WATER SUPPLY; WATER WELLS;
*WATER TREATMENT

DESCRIPTIVE NOTE: 103P. PRICE: \$6.00

ABSTRACT: COMPARED ARE THE INSTALLATION AND MAINTENANCE ADVANTAGES OF PRIVATE WELLS AND WATER SYSTEMS USING GROUNDWATER TO THE COSTS OF SIGNIFICANT PIPING AND OPERATING COSTS OF A CENTRAL SYSTEM SUCH AS A RURAL WATER DISTRICT.

AVAILABILITY: WATER SYSTEMS COUNCIL, 221 NORTH LASALLE STREET, SUITE 2026, CHICAGO, IL 60601

IRIS ACCESSION NUMBER: EW006581

PUBLICATION DATE: JAN 81

TITLE: THE DEVELOPMENT AND TESTING OF BEACH CLEANING DEVICE: THE CALTROP MARK II.

PERSONAL AUTHOR: MEIKLE, K. M.

DESCRIPTOR: *BEACHES; *CLEANING; *DESIGN; *ENGINEERING;
*OILSPILLS; *POLLUTION; *PUMPS; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 7-11P.

ABSTRACT: REVIEWED IS THE DEVELOPMENT AND TESTING OF A BEACH DEVICE, A CALTROP BELT, WHICH DEMONSTRATED DESIGN CONSISTENCY IN PICKING UP OIL AND ACCOMPANYING SAND FROM RECREATIONAL BEACHES.

AVAILABILITY: SPILL TECHNOLOGY NEWSLETTER, V6 N1

IRIS ACCESSION NUMBER: EW006582

PUBLICATION DATE: JAN 81

TITLE: CONSEQUENCES OF OFFSHORE OIL PRODUCTION ON FISH STOCKS AND FISHING OPERATIONS.

PERSONAL AUTHOR: SCARRAT, D. J.

DESCRIPTOR: *AQUATIC ENVIRONMENTS; *ENVIRONMENTAL IMPACT;
*FISHERIES; *HYDROCARBONS; *MONITORING; *MARINE POLLUTION;
OILSPILLS; POLLUTION; *SPILL TECHNOLOGY; *TOXICITY; *WATER QUALITY

DESCRIPTIVE NOTE: 12-20P.

ABSTRACT: EVALUATED ARE PROBABLE CONSEQUENCES OF ADDITIONAL OIL CONTAMINATION TO FISH AND FISHING OPERATIONS TO BE

ANTICIPATED AS A RESULT OF FUTURE OFFSHORE HYDROCARBON PRODUCTION.

AVAILABILITY: SPILL TECHNOLOGY NEWSLETTER, V6 N1

IRIS ACCESSION NUMBER: EW006583

PUBLICATION DATE: JAN 81

TITLE: THE BIOS PROJECT - 1980 REVIEW.

PERSONAL AUTHOR: BLACKALL, PETER J.; AND OTHERS

DESCRIPTOR: *DISPERSANTS; *HYDROCARBONS; *MARINE POLLUTION;
*OILSPILLS; *PETROLEUM INDUSTRY; *POLLUTION; *SPILL TECHNOLOGY; *WATER POLLUTION CONTROL; *WATER QUALITY

DESCRIPTIVE NOTE: 21-35P.

ABSTRACT: DISCUSSED IS WHETHER THE USE OF DISPERSANTS IN THE NEARSHORE WILL REDUCE OR INCREASE THE ENVIRONMENTAL EFFECTS OF SPILLED OIL. ASSESSED IS THE FATE OF SPILLED OIL. THE RELATIVE EFFECTIVENESS OF OTHER SHORELINE CLEANUP TECHNIQUES ARE COMPARED.

AVAILABILITY: SPILL TECHNOLOGY NEWSLETTER, V6 N1

IRIS ACCESSION NUMBER: EW006584

PUBLICATION DATE: MAR 81

TITLE: HEALTH EFFECTS DUE TO THE CESSATION OF CHLORINATION OF WASTEWATER TREATMENT PLANT EFFLUENTS.

PERSONAL AUTHOR: HOLDEN, JANET A.

DESCRIPTOR: *AGRICULTURE; *CHLORINATION; DISINFECTION;
DISEASES; *DRINKING WATER; *EFFLUENTS; *HEALTH; *IRRIGATION;
*PUBLIC HEALTH; PATHOGENS; TOXICITY; *WATER SUPPLY; *WATER QUALITY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 106P.

ABSTRACT: REVIEWED ARE POSSIBLE WAYS WASTEWATER EFFLUENTS MAY AFFECT HEALTH. POTENTIAL HAZARDS FROM SEWAGE INCLUDE: (1) ORGANISM DENSITIES IN SEWAGE; (2) INFECTIOUS DOSE; (3) REGROWTH AND RESISTANCE TO CHLORINE; AND (4) R FACTORS AND TRANSMISSION OF RESISTANCE. USES OF TREATED SEWAGE EFFLUENTS INCLUDE DRINKING WATER, IRRIGATION OR CROPS, LIVESTOCK WATER, AND AQUACULTURE.

AVAILABILITY: INSTITUTE OF NATURAL RESOURCES, 309 WEST WASHINGTON STREET, CHICAGO, IL 60606

IRIS ACCESSION NUMBER: EW006585
PUBLICATION DATE: MAR 81

TITLE: THE ECONOMIC ANALYSIS OF HEALTH RISKS AND THE ENVIRONMENTAL ASSESSMENT OF REVISED FECAL COLIFORM EFFLUENT AND WATER QUALITY STANDARDS, DOCUMENT NO. 81/15.

PERSONAL AUTHOR: HUFF, LINDA L.

DESCRIPTOR: BACTERIA; *BIOLOGICAL TREATMENT; CHLORINATION; *DISINFECTION; *DRINKING WATER; DISEASE CONTROL; *ECONOMICS; *ENVIRONMENT; FECAL COLIFORM; *HEALTH; *INDICATORS; *OPERATIONS (WASTEWATER); OZONE; *PUBLIC HEALTH; *POLICIES; *REGULATIONS; *RISK ASSESSMENT; SAFETY; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 182P.

ABSTRACT: ADDRESSED ARE THE BENEFITS AND COSTS OF THE REGULATORY PROPOSAL (R77-12) AS IT IMPINGES ON WATER AND HEALTH OF THE GENERAL PUBLIC. ISSUES CONCERNING CHANGES IN DISINFECTION, HEALTH RISKS, DISEASE TRANSMISSION, REGROWTH OF BACTERIA, AND THE SIGNIFICANCE OF FECAL COLIFORM AS AN INDICATOR ARE QUESTIONED BY THE SCIENTIFIC COMMUNITY.

AVAILABILITY: ILLINOIS INSTITUTE OF NATURAL RESOURCES, 309 WEST WASHINGTON STREET, CHICAGO, IL 60606

IRIS ACCESSION NUMBER: EW006586

PUBLICATION DATE: APR 81

TITLE: ECONOMIC IMPACT OF COMBINED SEWER OVERFLOW REGULATION (RULE 602) ILLINOIS, DOCUMENT NO. 81/18.

PERSONAL AUTHOR: HUFF, LINDA L.

DESCRIPTOR: *COSTS; CONSTRUCTION; *DESIGN; *ENGINEERING; *FACILITIES; GRANTS; *HEALTH; *OPERATIONS (WASTEWATER); PUMPS; PLANNING; REGULATIONS; *SEWERS; *SEWER OVERFLOW; *WASTEWATER COLLECTION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 203P.

ABSTRACT: CONSIDERED IS THE STATUS OF COMBINED SEWER OVERFLOW (CSO) CONTROL AND THE PROBLEMS OF COMPLIANCE WITH EXISTING REGULATIONS (RULE 602). DISCUSSED IS THE CONFLICT BETWEEN STATE AND FEDERAL REQUIREMENTS, IN ADDITION TO GENERAL AVAILABILITY OF FUNDS FOR CSO CONTROL THAT INDICATES MUNICIPALITIES MAY FACE ECONOMIC BURDENS.

AVAILABILITY: ILLINOIS INSTITUTE OF NATURAL RESOURCES, 309 WEST WASHINGTON STREET, CHICAGO, IL 60606

IRIS ACCESSION NUMBER: EW006591

PUBLICATION DATE: JUN 81

TITLE: DEFUSING CHEMICAL 'TIME BOMBS'.

PERSONAL AUTHOR: O'NEILL, LARRY
DESCRIPTOR: *CHEMICAL WASTES; *COST EFFECTIVENESS; *DUMP SITES; *HAZARDOUS WASTES; *HEALTH; *SAFETY; *TOXICITY; *TOXIC WASTES; ULTRAVIOLET LIGHT; WASTE DISPOSAL; *WATER QUALITY; *WATER SUPPLY

ABSTRACT: REVIEWED IS THE USE OF ULTRAVIOLET LIGHT TO HELP CLEAN UP LIQUID WASTES CONTAMINATION BY TCDD DIOXIN. THE TECHNIQUE, WHICH IS CALLED PHOTOLYSIS, IS AN EXAMPLE OF THE EFFORTS TAKEN TO DEFUSE CHEMICAL DUMPSITES.

AVAILABILITY: EPA JOURNAL, V7 N6

IRIS ACCESSION NUMBER: EW006592

PUBLICATION DATE: JUN 81

TITLE: MANAGING MICHIGAN'S HAZARDOUS WASTES.

PERSONAL AUTHOR: MARKS, BILL

DESCRIPTOR: COMMUNITY HEALTH; COST EFFECTIVENESS; *DUMPSITES; FACILITIES; *HAZARDOUS WASTES; *MANAGEMENT; *PLANNING; *PUBLIC HEALTH; *REGULATIONS; *SAFETY; *TOXICITY; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 5, 36-37P.

ABSTRACT: DESCRIBED IS A WASTE MANAGEMENT PROGRAM UNDERTAKEN TO MONITOR AND MANAGE THE DISPOSAL OF HAZARDOUS MATERIALS. IDENTIFIED ARE OBSTACLES TO SITING AND METHODS OF ENCOURAGING DEVELOPMENT OF ENVIRONMENTALLY SOUND FACILITIES.

AVAILABILITY: EPA JOURNAL, V7 N6

IRIS ACCESSION NUMBER: EW006593

PUBLICATION DATE: JUN 81

TITLE: NAVY EQUIPMENT MAY HELP LOCATE WASTE.

PERSONAL AUTHOR: LOORNAZIAN, LINDA YOUNG

DESCRIPTOR: COST EFFECTIVENESS; *DUMPSITES; *DESIGN; *EQUIPMENT; *ENGINEERING; FACILITIES; *HAZARDOUS WASTES; *PUBLIC HEALTH; *SAFETY; *TOXIC CHEMICALS; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 6-7P.

ABSTRACT: DESCRIBED IS THE USE OF EQUIPMENT IN THE INVESTIGATION OF UNCONTROLLED HAZARDOUS WASTE SITES. DISCUSSED IS THE USE OF SURFACE DETECTORS TO LOCATE BURIED WASTES.

AVAILABILITY: EPA JOURNAL, V7 N6

IRIS ACCESSION NUMBER: EW006599

PUBLICATION DATE: JUN 81

TITLE: EPA AND FEDERAL INFORMATION CENTERS.

PERSONAL AUTHOR: WHITNEY, VALERIE

DESCRIPTOR: *AGENCIES; *COMMUNITY SERVICES; *FEDERAL PROGRAMS; *FEDERAL ROLE; *GUIDES; *INFORMATION CENTERS; *INFORMATION SOURCES; *PUBLIC RELATIONS; *PROGRAM DESCRIPTIONS; REGULATIONS; *STANDARDS

DESCRIPTIVE NOTE: 24-25P.

ABSTRACT: DISCUSSED IS THE ROLE OF THE FEDERAL INFORMATION PROGRAM TO PROVIDE PEOPLE WITH A ONE-STOP SOURCE OF INFORMATION ON FEDERAL GOVERNMENT-RELATED PROGRAMS, POLICIES, AND ACTIVITIES.

AVAILABILITY: EPA JOURNAL, V7 N6

IRIS ACCESSION NUMBER: EW006601

PUBLICATION DATE: JUN 81

TITLE: EPA CRISIS TRAINING FOR HAZARDOUS MATERIALS.

PERSONAL AUTHOR: SELL, THOMAS C.

DESCRIPTOR: *ENVIRONMENTAL EDUCATION; *HAZARDOUS WASTES; *INSTRUCTION; *MONITORING; *PLANNING; PUBLIC HEALTH; *POST SECONDARY EDUCATION; *SAFETY; *TOXIC SUBSTANCES; *TOXICITY; *TRAINING PROGRAMS

DESCRIPTIVE NOTE: 30-31P.

ABSTRACT: DESCRIBED IS A TRAINING PROGRAM TO PREPARE RESPONSE PERSONNEL FOR MANAGING ENVIRONMENTAL EPISODES INVOLVING A WIDE RANGE OF HAZARDOUS MATERIALS. PRACTICAL KNOWLEDGE ABOUT ACTIVITIES DURING THE INITIAL PHASE OF AN INCIDENT INVOLVING TOXIC SUBSTANCES IS STRESSED.

AVAILABILITY: EPA JOURNAL, V7 N6

IRIS ACCESSION NUMBER: EW006602

PUBLICATION DATE: JUN 81

TITLE: EPA'S ENVIRONMENTAL RESPONSE TEAM--ON CALL AROUND THE CLOCK.

PERSONAL AUTHOR: DORRLER, STEPHEN

DESCRIPTOR: *COMMUNITY SERVICES; *DISASTERS; *EQUIPMENT; *HAZARDOUS WASTES; *MONITORING; *PUBLIC HEALTH; *PLANNING; *SAFETY; *SPILLS; *TRAINING PROGRAMS; *TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 32-33P.

ABSTRACT: DESCRIBED ARE THE TECHNIQUES USED BY AN ENVIRONMENTAL RESPONSE TEAM TO ASSIST LOCAL COMMUNITIES WITH SPILL CONTAINMENT, CLEAN-UP, AND DAMAGE ASSESSMENT DURING EMERGENCY DISASTER INCIDENTS. EMPHASIZED IS THE USE OF UPDATED SAFETY EQUIPMENT AND A MEDICAL MONITORING PROGRAM.

AVAILABILITY: EPA JOURNAL, V7 N6

IRIS ACCESSION NUMBER: EW006618

PUBLICATION DATE: DEC 80

TITLE: A SUMMARY OF TECHNICAL AND ECONOMIC OPTIONS.

PERSONAL AUTHOR: KALBERMATTEN, JOHN M.; AND OTHERS

DESCRIPTOR: *ECONOMICS; *HEALTH; *INSTRUCTIONAL MATERIALS; *PLANNING; POST SECONDARY EDUCATION; *PROGRAM DESIGN; RESEARCH REPORTS; REFERENCE MATERIALS; *SOCIAL FACTORS; *TEXTBOOKS

ABSTRACT: THIS PAPER SUMMARIZES THE BROAD TECHNICAL, ECONOMIC, HEALTH, AND SOCIAL FINDINGS OF THE RESEARCH AND DISCUSSES THE ASPECTS OF PROGRAM PLANNING NECESSARY TO IMPLEMENT THE FINDINGS.

AVAILABILITY: THE JOHN HOPKINS UNIVERSITY PRESS, HOMEWOOD, BALTIMORE, MD 21218

IRIS ACCESSION NUMBER: EW006631

PUBLICATION DATE: JUN 80

TITLE: METHANE FROM WASTE. JUNE, 1970-JUNE, 1980 (CITATIONS FROM THE ENGINEERING INDEX DATA BASE.)

PERSONAL AUTHOR: OGUSHWITZ, HOWARD L.

DESCRIPTOR: *ABSTRACTS; *ANNOTATED BIBLIOGRAPHIES; *COST EFFECTIVENESS; COSTS; *ENGINEERING; *ENERGY; *FUELS; *METHANE; *ORGANIC WASTES; *RESEARCH; *SEWAGE; WASTE DISPOSAL

DESCRIPTIVE NOTE: 149P. PB81-855181

ABSTRACT: THE PUBLICATION CONTAINS ABSTRACTS RELATED TO THE PRODUCTION OF METHANE AND OTHER FUELS FROM ORGANIC WASTE, SEWAGE, MANURE, AND OTHER WASTES. ENGINEERING AND ECONOMIC OVERVIEWS OF ALTERNATIVE WASTE UTILIZATION TECHNIQUES ARE INCLUDED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5295 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006651

PUBLICATION DATE: JAN 81

TITLE: TEXTILE PROCESSING WASTES AND THEIR CONTROL 1979-1980. (CITATIONS FROM THE ENGINEERING INDEX DATA BASE.)

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *AIR POLLUTION CONTROL; *EQUIPMENT; FACILITIES; *INDUSTRIAL TECHNOLOGY; *RESEARCH; *RECYCLING; *SOLID WASTES; *TEXTILE INDUSTRY; *WATER POLLUTION CONTROL; *WATER QUALITY

DESCRIPTIVE NOTE: 204P. PB81-801805

ABSTRACT: DISCUSSED IS THE CONTROL OF WATER POLLUTION, AIR POLLUTION, AND SOLID WASTES OF THE TEXTILE INDUSTRY. TOPICS INCLUDED ARE WASTEWATER, TREATMENT OF DYES, THE USE OF ACTIVATED CARBON IN THE PROCESSES, DESIGN CRITERIA OF THE CONTROL EQUIPMENT, AND REUSING MATERIALS THAT ARE RECOVERED IN THE CONTROL PROCESS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION PROJECT, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006653

PUBLICATION DATE: DEC 80

TITLE: ACID MINE DRAINAGE, OCTOBER, 1978-DECEMBER, 1980 (CITATIONS FROM THE NTIS DATA BASE.)

PERSONAL AUTHOR: BROWN, ROBENA J.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ACID MINE DRAINAGE; *ANNOTATED BIBLIOGRAPHIES; ECOLOGY; *LAND RECLAMATION; *MINING; *POLLUTION; *TOXIC SUBSTANCES; *WATER POLLUTION CONTROL; *WATER QUALITY; *WATER TREATMENT; *WATER SUPPLY

DESCRIPTIVE NOTE: 63P. PB81-801649

ABSTRACT: REVIEWED ARE CONTROL AND TREATMENT METHODS FOR ACID MINE DRAINAGE. REPORTS ON HYDROGEOLOGY, ECOLOGY, FORMATION, AND SOURCES ARE INCLUDED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006676

PUBLICATION DATE: 81

TITLE: MUNICIPAL SOLID WASTE DISPOSAL IN ESTUARIES AND COASTAL MARSHLANDS.

PERSONAL AUTHOR: SODD, ANTHONY N.

DESCRIPTOR: *ENVIRONMENT; *ENVIRONMENTAL IMPACT; *ENVIRONMENTAL INFLUENCES; *FLOODPLAINS; *LANDFILLS; *MANAGEMENT; *PLANNING; *REGULATIONS; *SOLID WASTES; *SEA COASTS; *WASTE DISPOSAL; *WATER QUALITY; *WETLANDS

DESCRIPTIVE NOTE: PB81-129223

ABSTRACT: DISCUSSED ARE PAST AND PRESENT INSTANCES OF MUNICIPAL SOLID WASTE DISPOSAL IN LOW-LYING COASTAL LANDS. REVIEWED IS THE ENVIRONMENTAL IMPACT FROM SUCH WASTE DISPOSAL.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006702

PUBLICATION DATE: JUN 81

TITLE: WATER CHARACTERISTICS.

PERSONAL AUTHOR: SMITH, EDGAR D.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; ACID RAIN; *CHEMICAL ANALYSIS; CHEMICAL PROPERTIES; *ENVIRONMENTAL INFLUENCES; ENVIRONMENT; *LITERATURE REVIEWS; *RESEARCH REVIEWS; *WATER ANALYSIS; WATER CHARACTERISTICS

DESCRIPTIVE NOTE: 649-659P.

ABSTRACT: THIS ARTICLE DISCUSSES ACID PRECIPITATION AND THE RESEARCH PERTAINING TO IT. FORMATION OF ACID RAIN AS WELL AS EFFECT OF THE PRECIPITATION ON GROUNDWATER, PLANTS, AND ANIMALS IS REVIEWED. RESEARCH ON ANALYTICAL TECHNIQUES FOR MEASURING THESE EFFECTS ARE REPORTED, AS WELL AS ANALYTICAL TECHNIQUES FOR MEASUREMENT OF OTHER WATER CHARACTERISTICS SUCH AS SUSPENDED SOLIDS, PARTICLE SIZE ANALYSIS, AND RADIOACTIVITY.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V33 N6

IRIS ACCESSION NUMBER: EW006703

PUBLICATION DATE: JUN 81

TITLE: PHYSICAL AND CHEMICAL METHODS.

PERSONAL AUTHOR: ZOLTEK, JOHN; MELEAR, E. L.

DESCRIPTOR: ADSORPTION; *CHEMICAL TREATMENT; *FACILITIES; ION EXCHANGE; *LITERATURE REVIEWS; *PHYSICAL TREATMENT; *RESEARCH REVIEWS; SUSPENDED SOLIDS; *SOLID WASTE MANAGEMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 679-687P.

ABSTRACT: THIS LITERATURE REVIEW DISCUSSES THE PHYSICAL AND CHEMICAL METHODS OF WASTEWATER TREATMENT. DIFFERENT PLANT TYPES AND TREATMENT SEQUENCES ARE DETAILED. TYPES OF TREATMENT REVIEWED INCLUDE COAGULATION AND SOLIDS SEPARATION, ADSORPTION, ION EXCHANGE, MEMBRANE PROCESSES, AND OXIDATIVE PROCESSES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION -

REVIEW ISSUE, V53 N6

IRIS ACCESSION NUMBER: EW006704

PUBLICATION DATE: JUN 81

TITLE: BIOLOGICAL FILTERS.

PERSONAL AUTHOR: KLETETSON, S. L.; ROGERS, G. L.

DESCRIPTOR: ANAEROBIC TREATMENT; *BIOLOGICAL TREATMENT;
BIOLOGICAL INFLUENCES; BIFOULING; *BIOLOGICAL FILTERS;
*FILTERS; *LITERATURE REVIEWS; *OPERATIONS (WASTEWATER);
*RESEARCH REVIEWS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 687-700P.

ABSTRACT: TYPES OF BIOLOGICAL FILTERS USED IN WASTEWATER TREATMENT ARE DISCUSSED. INCLUDED ARE SECTIONS ON ROTATING BIOLOGICAL CONTACTORS, FIXED BIOLOGICAL FILTERS, FLUIDIZED BED REACTORS, ANAEROBIC FILTERS, SUBMERGED FILTERS, AND AQUACULTURE APPLICATIONS. PROS AND CONS AS WELL AS EXAMPLES OF THE FILTERS IN USE ARE LISTED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V53 N6

IRIS ACCESSION NUMBER: EW006705

PUBLICATION DATE: JUN 81

TITLE: ACTIVATED SLUDGE.

PERSONAL AUTHOR: SHERRARD, JOSEPH H.; AND OTHERS

DESCRIPTOR: *ACTIVATED SLUDGE; *LITERATURE REVIEWS;
*OPERATIONS (WASTEWATER); *RESEARCH REVIEWS; *SLUDGE;
*SLUDGE TREATMENT; SLUDGE CHARACTERISTICS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 700-709P.

ABSTRACT: THIS LITERATURE REVIEW DISCUSSES ACTIVATED SLUDGE IN THE WASTEWATER TREATMENT PROCESS. PROCESS MODELING, DESIGN CONCEPTS AND OPTIONS, PERFORMANCE AND RESPONSE, SLUDGE CHARACTERISTICS, O₂ UPTAKE AND TRANSFER, NITROGEN TREATMENT, PHOSPHORUS REMOVAL, INDUSTRIAL WASTEWATERS, PAC ADDITION, AND AEROBIC DIGESTION ARE REVIEWED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V53 N6

IRIS ACCESSION NUMBER: EW006706

PUBLICATION DATE: JUN 81

TITLE: LAGOONS AND OXIDATION PONDS.

PERSONAL AUTHOR: GEORGE, DENNIS B.
DESCRIPTOR: *BIOLOGICAL TREATMENT; *FACILITIES; *LITERATURE REVIEWS; *LAGOONS; *OXIDATION PONDS; *RESEARCH REVIEWS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 709-711P.

ABSTRACT: THIS LITERATURE REVIEW DISCUSSES LAGOONS AND OXIDATION PONDS IN THE WASTEWATER TREATMENT PROCESS. SECTIONS ON PROCESS DESIGN, PROCESS PERFORMANCE AND BIOLOGY, UPGRADING OF LAGOONS, AND PROCESS MODELS ARE INCLUDED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V53 N6

IRIS ACCESSION NUMBER: EW006707

PUBLICATION DATE: JUN 81

TITLE: ANAEROBIC PROCESSES.

PERSONAL AUTHOR: FANNIN, KERBY F.; AND OTHERS

DESCRIPTOR: *ANAEROBIC TREATMENT; *BIODEGRADATION;
FACILITIES; *LITERATURE REVIEWS; MICROBIOLOGY; *OPERATIONS (WASTEWATER); *RESEARCH REVIEWS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 711-720P.

ABSTRACT: THIS ARTICLE IS A LITERATURE REVIEW ON ANAEROBIC PROCESSES USED IN WASTEWATER TREATMENT. THE MICROBIOLOGY OF THE DIFFERENT ANAEROBES IS DISCUSSED, AS WELL AS PROCESS CHARACTERIZATION, PROCESS OPTIMIZATION, AND PROCESS APPLICATION. A GENERAL REVIEW AS TO THE STATUS OF RESEARCH AND TECHNOLOGY IN THE FIELD IS ALSO INCLUDED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V53 N6

IRIS ACCESSION NUMBER: EW006708

PUBLICATION DATE: JUN 81

TITLE: DENITRIFICATION.

PERSONAL AUTHOR: KRUP, M.; PRAKASAM, T. B. S.

DESCRIPTOR: BACTERIA; *DENITRIFICATION; *LITERATURE REVIEWS; MICROBIOLOGY; *NIGHT SOILS; *NITRATES; NITRIFICATION; *OPERATIONS (WASTEWATER); *RESEARCH REVIEWS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 720-726P.

ABSTRACT: THIS LITERATURE REVIEW DISCUSSES DENITRIFICATION IN THE WASTEWATER TREATMENT PROCESS. SEVERAL METHODS OF DENITRIFICATION ARE DISCUSSED, INCLUDING SLURRY PROCESSES, ATTACHED GROWTH PROCESSES, AND SOIL DENITRIFICATION. PATENTS FOR DENITRIFICATION SYSTEMS ARE DETAILED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION -
REVIEW ISSUE, V53 N6

IRIS ACCESSION NUMBER: EW006709

PUBLICATION DATE: JUN 81

TITLE: SLUDGE TREATMENT, UTILIZATION, AND DISPOSAL.

PERSONAL AUTHOR: VESILIND, P. AARNE

DESCRIPTOR: *LITERATURE REVIEWS; *OPERATIONS (WASTEWATER);
*RESEARCH REVIEWS; *SLUDGE; *SLUDGE CHARACTERISTICS; *SLUDGE
TREATMENT; *SLUDGE DISPOSAL; STABILIZATION; *WASTEWATER
TREATMENT

DESCRIPTIVE NOTE: 726-733P.

ABSTRACT: THIS ARTICLE IS A LITERATURE REVIEW ON SLUDGE
TREATMENT, UTILIZATION, AND DISPOSAL. SLUDGE PROPERTIES AND
CHARACTERISTICS THAT INFLUENCE OPTIONS IN TREATMENT AND
DISPOSAL ARE DISCUSSED. ALSO INCLUDED ARE SECTIONS REVIEWING
INDUSTRIAL, NUTRIENT LADEN AND WATER TREATMENT SLUDGES;
THERMAL CONDITIONING AND INCINERATION; THICKENING;
DEWATERING; STABILIZATION; AND ULTIMATE DISPOSAL AND
UTILIZATION.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION -
REVIEW ISSUE, V53 N6

IRIS ACCESSION NUMBER: EW006710

PUBLICATION DATE: JUN 81

TITLE: ONSITE ALTERNATIVES FOR TREATMENT AND DISPOSAL.

PERSONAL AUTHOR: BOYLE, WILLIAM C.; OTIS, RICHARD J.

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *COMPOSTING; COSTS;
*LITERATURE REVIEWS; MANAGEMENT; *ONSITE WASTEWATER
DISPOSAL; *RESEARCH REVIEWS; REGULATIONS; RURAL AREAS;
*SEPTIC TANKS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 733-737P.

ABSTRACT: THIS ARTICLE IS A LITERATURE REVIEW ON ONSITE
ALTERNATIVES FOR TREATMENT AND DISPOSAL OF WASTES AND
WASTEWATER, ESPECIALLY AS IT PERTAINS TO INDIVIDUAL HOMES
AND SMALL COMMUNITIES. INCLUDED ARE REVIEWS OF ONSITE
TREATMENT, SUBSURFACE DISPOSAL SYSTEMS, EVAPOTRANSPIRATION,
SEPTAGE MANAGEMENT, AND SMALL COMMUNITY FACILITIES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION -
REVIEW ISSUE, V53 N6

IRIS ACCESSION NUMBER: EW006711

PUBLICATION DATE: JUN 81

TITLE: O & M OF WASTEWATER COLLECTION AND TREATMENT
FACILITIES.

PERSONAL AUTHOR: DRURY, DOUGLAS D.

DESCRIPTOR: ACTIVATED SLUDGE; COMPUTER APPLICATIONS;
*FACILITIES; *LITERATURE REVIEWS; *MANAGEMENT; *OPERATIONS
(WASTEWATER); OPERATOR TRAINING; *RESEARCH REVIEWS;
*WASTEWATER TREATMENT; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 737-739P.

ABSTRACT: THIS ARTICLE IS A LITERATURE REVIEW OF THE
OPERATION AND MANAGEMENT OF WASTEWATER COLLECTION AND
TREATMENT FACILITIES. SECTIONS ON IMPROVING OPERATIONS,
OPERATING THE ACTIVATED SLUDGE PROCESS, PLANT START-UP AND
OPERATOR TRAINING, COMPUTER AIDED OPERATIONS, EFFECT OF
COLLECTION SYSTEM ON PLANT OPERATIONS, AND MISCELLANEOUS
OPERATION AND MAINTENANCE ARE INCLUDED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION -
REVIEW ISSUE, V53 N6

IRIS ACCESSION NUMBER: EW006712

PUBLICATION DATE: JUN 81

TITLE: DISINFECTION.

PERSONAL AUTHOR: GOULD, J. P.

DESCRIPTOR: ANALYTICAL TECHNIQUES; CHLORINATION;
*DISINFECTION; LABORATORY PROCEDURES; *LITERATURE REVIEWS;
*MICROBIOLOGY; *OPERATIONS (WASTEWATER); PH; *RESEARCH
REVIEWS; TRIHALOMETHANES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 739-748P.

ABSTRACT: THIS LITERATURE REVIEW DISCUSSES DISINFECTION IN
THE WASTEWATER TREATMENT PROCESS. MICROBIOLOGICAL ASPECTS,
EFFECTS OF DISINFECTANTS ON HIGHER ORGANISMS, ANALYTICAL
METHODS IN USE, CHLORINATION OF INORGANIC COMPOUNDS,
FORMATION OF NONVOLATILE ORGANIC COMPOUNDS, AND FORMATION OF
TRICHALOMETHANES ARE REVIEWED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION -
REVIEW ISSUE, V53 N6

IRIS ACCESSION NUMBER: EW006713

PUBLICATION DATE: JUN 81

TITLE: WASTEWATER COLLECTION.

PERSONAL AUTHOR: CHATTERJEE, SAMAR; HEUER, THOMAS

DESCRIPTOR: *LITERATURE REVIEWS; *MAINTENANCE; *OPERATIONS (WASTEWATER); *PIPES; PUMPS; *RESEARCH REVIEWS; *SAFETY; *SEWERS; *WASTEWATER TREATMENT; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 748-750P.

ABSTRACT: THIS LITERATURE REVIEW DISCUSSES WASTEWATER COLLECTION AS A PART OF THE WASTEWATER TREATMENT PROCESS. SECTIONS INCLUDE DESIGN AND CONSTRUCTION, SEWER REHABILITATION, SAFETY, AND WASTEWATER PUMPING.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V53 N6

IRIS ACCESSION NUMBER: EW006714

PUBLICATION DATE: JUN 81

TITLE: WATER RECLAMATION AND REUSE.

PERSONAL AUTHOR: HRUDEY, STEVE E.

DESCRIPTOR: AGRICULTURAL WASTES; *GROUNDWATER; INDUSTRIAL WASTEWATER; IRRIGATION; *LITERATURE REVIEWS; PUBLIC HEALTH; *RESEARCH REVIEWS; *RECYCLING; *WASTEWATER TREATMENT; *WATER REUSE

DESCRIPTIVE NOTE: 751-767P.

ABSTRACT: THIS ARTICLE IS A RESEARCH/LITERATURE REVIEW OF WATER REUSE AND RECLAMATION. AREAS REVIEWED INCLUDE WATER RESOURCES PLANNING, AGRICULTURE AND IRRIGATION, GROUNDWATER RECHARGE, INDUSTRIAL WATER REUSE, DOMESTIC REUSE, HEALTH CONSIDERATIONS, AND TECHNOLOGY DEVELOPMENT.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V53 N6

IRIS ACCESSION NUMBER: EW006715

PUBLICATION DATE: JUN 81

TITLE: LAND APPLICATION OF MUNICIPAL WASTEWATER.

PERSONAL AUTHOR: REYNOLDS, JAMES H.

DESCRIPTOR: *CASE STUDIES; DESIGN; *LITERATURE REVIEWS; *LAND USE; *LAND TREATMENT; *OPERATIONS (WASTEWATER); *RESEARCH REVIEWS; *WASTEWATER TREATMENT; *WATER REUSE

DESCRIPTIVE NOTE: 767-770P.

ABSTRACT: THIS ARTICLE IS A LITERATURE REVIEW OF LAND APPLICATION OF MUNICIPAL WASTEWATER AS A PART OF THE WASTEWATER TREATMENT PROCESS. INCLUDED ARE REVIEWS ON DESIGN PARAMETERS, CASE STUDIES, AND REUSE.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V53 N6

IRIS ACCESSION NUMBER: EW006716

PUBLICATION DATE: JUN 81

TITLE: URBAN RUNOFF AND COMBINED SEWER OVERFLOW.

PERSONAL AUTHOR: MOFFA, PETER F.; AND OTHERS

DESCRIPTOR: *FACILITIES; *LITERATURE REVIEWS; *MANAGEMENT; *RESEARCH REVIEWS; SEWERS; *STORM SEWERS; *SURFACE RUNOFF; *SEWER OVERFLOW; URBAN PROBLEMS; *WASTEWATER COLLECTION; *WASTEWATER TREATMENT; *WATER RUNOFF

DESCRIPTIVE NOTE: 770-776P.

ABSTRACT: THIS ARTICLE IS A LITERATURE REVIEW OF URBAN RUNOFF AND COMBINED SEWER OVERFLOW. DISCUSSED ARE CHARACTERISTICS IN TERMS OF THE TYPES OF POLLUTANTS AND THEIR RELATIVE STRENGTHS, HYDROLOGY, RECEIVING WATER, CONTROL, TREATMENT, AND MANAGEMENT.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V53 N6

IRIS ACCESSION NUMBER: EW006717

PUBLICATION DATE: JUN 81

TITLE: HEALTH EFFECTS ASSOCIATED WITH WASTEWATER TREATMENT AND DISPOSAL.

PERSONAL AUTHOR: KOWAL, N. E.; PAHREN, H. R.

DESCRIPTOR: *COMPOSTING; *HEALTH; *LAND APPLICATION; *LITERATURE REVIEWS; MICROBIOLOGY; *OPERATIONS (WASTEWATER); *RESEARCH REVIEWS; *SAFETY; *SLUDGE; *WASTEWATER TREATMENT; WASTEWATER DISPOSAL; WATER REUSE

DESCRIPTIVE NOTE: 776-786P.

ABSTRACT: THIS JOURNAL ARTICLE REVIEWS THE HEALTH EFFECTS ASSOCIATED WITH WASTEWATER TREATMENT AND DISPOSAL. JOB SAFETY AND HEALTH DURING WASTEWATER TREATMENT AND SLUDGE MANAGEMENT AS WELL AS COMPOSTING, LAND APPLICATION OF WASTEWATER AND SLUDGE, AND RENOVATED WATER ARE DISCUSSED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V53 N6

IRIS ACCESSION NUMBER: EW006718

PUBLICATION DATE: JUN 81

TITLE: PULP AND PAPER INDUSTRY EFFLUENT MANAGEMENT.

PERSONAL AUTHOR: COVE, GEORGE W.

DESCRIPTOR: BIOLOGY; COSTS; *EFFLUENTS; *INDUSTRIAL WASTES; *INDUSTRY; *LITERATURE REVIEWS; MANAGEMENT; *OPERATIONS (WASTEWATER); *PAPER INDUSTRY; *RESEARCH REVIEWS;

***WASTEWATER TREATMENT**

DESCRIPTIVE NOTE: 799-814P.

ABSTRACT: THIS ARTICLE IS A LITERATURE REVIEW OF EFFLUENT MANAGEMENT IN THE PULP AND PAPER INDUSTRY. DISCUSSED ARE NATIONAL POLICIES, ECONOMICS, EFFLUENT SOURCES AND TREATMENT, AS WELL AS RECEIVING WATERS, BIOLOGICAL EFFECTS AND EFFLUENT CHARACTERIZATIONS. OTHER TOPICS REVIEWED INCLUDE PULP LIQUOR DISPOSAL AND RECOVERY, PHYSICOCHEMICAL TREATMENT, AND SECONDARY TREATMENT.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V33 N6

IRIS ACCESSION NUMBER: EW006719

PUBLICATION DATE: JUN 81

TITLE: SOLID WASTES AND WATER QUALITY.

PERSONAL AUTHOR: BROWER, G. R.; RAMKRISHNADAS, R.

DESCRIPTOR: *HAZARDOUS WASTES; *INDUSTRIAL WASTES;
*LITERATURE REVIEWS; *RESEARCH REVIEWS; *SOLID WASTES;
*WATER QUALITY; WASTE COLLECTION; *WASTE TREATMENT

DESCRIPTIVE NOTE: 897-900P.

ABSTRACT: THIS ARTICLE IS A LITERATURE REVIEW OF SOLID WASTES AND WATER QUALITY. INCLUDED ARE DISCUSSIONS ON: (1) ENVIRONMENTAL IMPACT; (2) DESIGN, COLLECTION AND ATTENUATION; (3) CHARACTERIZATION AND TREATMENT; AND (4) HAZARDOUS WASTES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V33 N6

IRIS ACCESSION NUMBER: EW006720

PUBLICATION DATE: JUN 81

TITLE: NON-POINT SOURCES.

PERSONAL AUTHOR: BROWNE, F. X.

DESCRIPTOR: AGRICULTURAL WASTES; *ANALYTICAL TECHNIQUES;
*EUTROPHICATION; *NONPOINT POLLUTION; *NONPOINT SOURCES;
*WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 901-908P.

ABSTRACT: THIS ARTICLE IS A LITERATURE REVIEW OF NON-POINT SOURCES OF WATER POLLUTION. INCLUDED ARE SECTIONS ON ANALYSIS AND CHARACTERISTICS OF THESE SOURCES, WATER QUALITY EFFECTS, WATERSHED STUDIES, NON-POINT SOURCE MODELS, AND NON-POINT SOURCE MANAGEMENT.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V33 N6

IRIS ACCESSION NUMBER: EW006721

PUBLICATION DATE: JUN 81

TITLE: EUTROPHICATION.

PERSONAL AUTHOR: MEDINE, ALLEN; PORCELLA, DONALD B.

DESCRIPTOR: *EUTROPHICATION; ECOSYSTEMS; *LITERATURE
REVIEWS; *LAKES; *NUTRIENTS; NUTRIENT REMOVAL; *RESEARCH
REVIEWS; *WATER POLLUTION

DESCRIPTIVE NOTE: 908-916P.

ABSTRACT: THIS ARTICLE IS A LITERATURE REVIEW ON EUTROPHICATION. INCLUDED ARE DISCUSSIONS ON: (1) NUTRIENT LOADING, EFFECTS OF CONTROLLING NUTRIENT LOADS, CORRELATIONS, AND INDICATORS; (2) EUTROPHICATION AND ECOSYSTEM MODELING; (3) NUTRIENT SOURCES AND SINKS, BIOLOGICAL AND CHEMICAL INTERACTIONS; (4) PHYTOPLANKTON AND MACROPHYTE DYNAMICS; AND (5) LAKE RESTORATION.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V33 N6

IRIS ACCESSION NUMBER: EW006722

PUBLICATION DATE: JUN 81

TITLE: DISSOLVED OXYGEN IN STREAMS AND RESERVOIRS.

PERSONAL AUTHOR: BOHAC, CHARLES E.

DESCRIPTOR: *DISSOLVED OXYGEN; *LITERATURE REVIEWS;
*OXYGEN; *RESEARCH REVIEWS; REGULATIONS; *RESERVOIRS;
*STREAMS; STANDARDS; WATER POLLUTION CONTROL; *WATER QUALITY

DESCRIPTIVE NOTE: 916-921P.

ABSTRACT: THIS ARTICLE IS A LITERATURE REVIEW OF DISSOLVED OXYGEN IN STREAMS AND RESERVOIRS. WATER QUALITY STANDARDS PERTAINING TO STREAMS ARE DISCUSSED AS WELL AS THOSE PERTAINING TO RESERVOIRS. TOPICS REVIEWED INCLUDE WATER QUALITY MODELS, OXYGEN DEMAND, AND OXYGEN TRANSFER.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V33 N6

IRIS ACCESSION NUMBER: EW006723

PUBLICATION DATE: JUN 81

TITLE: GROUND WATER.

PERSONAL AUTHOR: SAAR, ROBERT A.; BRAIDS, OLIN C.

DESCRIPTOR: AQUIFERS; *GROUNDWATER; *LITERATURE REVIEWS;
*RESEARCH REVIEWS; *RESOURCE PLANNING; *SOLUTES; *WATER
POLLUTION CONTROL; WATER RECHARGE; *WATER RESOURCES

DESCRIPTIVE NOTE: 921-923P.

ABSTRACT: THIS JOURNAL ARTICLE IS A LITERATURE REVIEW OF GROUNDWATER AND THE EFFECT WATER POLLUTION HAS UPON IT. DISCUSSED IS THE INCREASING FREQUENCY OF GROUNDWATER CONTAMINATION AND SUPPLY PROBLEMS, AS WELL AS INNOVATIONS IN HARDWARE AND TECHNIQUES TO DEAL WITH THEM. REVIEW SECTIONS INCLUDE RESEARCH ON WATER MOVEMENT, RESEARCH ON SOLUTE MOVEMENT, AND GROUNDWATER RESOURCE PLANNING.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V53 N6

IRIS ACCESSION NUMBER: EW006724

PUBLICATION DATE: JUN 81

TITLE: MARINE AND ESTUARINE POLLUTION.

PERSONAL AUTHOR: REISH, DONALD J.; AND OTHERS

DESCRIPTOR: *ESTUARIES; ENVIRONMENT; *LITERATURE REVIEWS; MICROBIOLOGY; *MARINE POLLUTION; MARINE BIOLOGY; *OCEANOLOGY; *PESTICIDES; *POLLUTION; *RESEARCH REVIEWS; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 923-949P.

ABSTRACT: THIS ARTICLE IS A LITERATURE REVIEW OF MARINE AND ESTUARINE POLLUTION. TOXIC EFFECTS OF PESTICIDES ARE DISCUSSED, AS WELL AS RESIDUES AND RELATED TOPICS. MICROBIOLOGY, COMPLEX EFFLUENTS AND ENVIRONMENTS, AND OIL POLLUTION. SEVERAL TABLES ARE INCLUDED LISTING TYPE OF ORGANISM, CHEMICAL RESIDUES FOUND, AND EFFECTS OF DIFFERENT POLLUTANTS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V53 N6

IRIS ACCESSION NUMBER: EW006725

PUBLICATION DATE: JUN 81

TITLE: THERMAL EFFECTS.

PERSONAL AUTHOR: CRAVENS, J. B.

DESCRIPTOR: *ESTUARIES; *ECOSYSTEMS; *LITERATURE REVIEWS; *MARINE POLLUTION; MODELS; *POLLUTION; *RESEARCH REVIEWS; *THERMAL POLLUTION; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 949-965P.

ABSTRACT: THIS ARTICLE IS A LITERATURE REVIEW ON THE EFFECTS OF THERMAL POLLUTION. SIMULATION MODELS ARE PRESENTED ALONG WITH ACTUAL CASE AND SITE STUDIES. TABLES ARE INCLUDED LISTING EFFECTS OF TEMPERATURE ON REPRODUCTION, EMBRYONIC DEVELOPMENT, LARVAL DEVELOPMENT, AND GROWTH.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION -

REVIEW ISSUE, V53 N6

IRIS ACCESSION NUMBER: EW006726

PUBLICATION DATE: JUN 81

TITLE: ENTRAINMENT AND IMPINGEMENT IN POWER PLANT COOLING SYSTEMS.

PERSONAL AUTHOR: CHOW, WINSTON; AND OTHERS

DESCRIPTOR: *AQUATIC BIOLOGY; *COOLING SYSTEMS; *DESIGN; ENVIRONMENTAL INFLUENCES; FACILITIES; *LITERATURE REVIEWS; *POWER PLANTS; *POLLUTION; *RESEARCH REVIEWS; *THERMAL POLLUTION; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 965-973P.

ABSTRACT: THIS ARTICLE IS A LITERATURE REVIEW OF ENTRAINMENT AND IMPINGEMENT IN POWER PLANT COOLING SYSTEMS. REVIEWED IS THE CURRENT RESEARCH ON DEVELOPMENTS TO DEFINE AND CONTROL THE CHARACTERISTICS OF COOLING WATER FROM THE BIOLOGICAL AS WELL AS THE ENGINEERING STANDPOINT. THE BIOLOGICAL SECTIONS DEAL WITH ADVANCES IN ECOLOGICAL CONCERNS AND FINDINGS ON ENTRAINMENT AND IMPINGEMENT AT POWER PLANTS. THE PLANT DESIGN ASPECTS SECTION DEALS WITH ADVANCES IN ENGINEERING DESIGNS TO MEET BIOLOGICAL CRITERIA.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V53 N6

IRIS ACCESSION NUMBER: EW006727

PUBLICATION DATE: JUN 81

TITLE: BIOASSAYS--PROCEDURES AND RESULTS.

PERSONAL AUTHOR: MACIOROWSKI, A. F.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *BIOASSAY TESTS; *BIOLOGICAL INDICATORS; BIOLOGY; *ENVIRONMENTAL INFLUENCES; *LITERATURE REVIEWS; *MICROBIOLOGY; *RESEARCH REVIEWS; *RESEARCH METHODOLOGY; *WATER POLLUTION CONTROL; WATER QUALITY

DESCRIPTIVE NOTE: 974-993P.

ABSTRACT: THIS LITERATURE REVIEW DISCUSSES BIOASSAY PROCEDURES AND RESULTS. THE ARTICLE INCLUDES SECTIONS ON: (1) DESIGN, INTERPRETATION, AND STRATEGY; (2) MICROORGANISMS; (3) ASSAYS WITH ALGAE AND OTHER PLANTS, INVERTEBRATES, FISH AND AMPHIBIANS; (4) COMPARATIVE TESTING; (5) MICROCOSMS AND IN SITU TESTING; AND (6) HEALTH EFFECTS ASSAYS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V53 N6

IRIS ACCESSION NUMBER: EW006728

PUBLICATION DATE: JUN 81

TITLE: BIOACCUMULATION AND TOXICITY OF HEAVY METALS AND RELATED TRACE ELEMENTS.

PERSONAL AUTHOR: MURPHY, CORNELIUS B., JR.

DESCRIPTOR: *CLASSIFICATION; *CHEMICAL REACTIONS; CHEMISTRY; *HEAVY METALS; *LITERATURE REVIEWS; *METALS; *RESEARCH REVIEWS; *TOXICITY; *TOXIC SUBSTANCES; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 993-999P.

ABSTRACT: THIS ARTICLE DISCUSSES THE LITERATURE PERTAINING TO TOXICITY AND HEAVY METALS. THE PRIMARY OUTPUT OF TOXICOLOGICAL STUDIES IS A DOSE RESPONSE CURVE AND CONCLUSIONS RELATIVE TO "NO EFFECT LEVEL." HEAVY METALS DISCUSSED ARE THOSE HAVING ATOMIC NUMBERS 22-34, 40-52, AS WELL AS LANTHANIDES AS ACTINIDES. A CLASSIFICATION SYSTEM IS PRESENTED FOR HEAVY METALS BASED ON THREE CLASSES -- OXYGEN SEEKING, NITROGEN/SULPHUR SEEKING, AND INTERMEDIATE.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V53 N6

IRIS ACCESSION NUMBER: EW006729

PUBLICATION DATE: JUN 81

TITLE: AQUATIC SEDIMENTS.

PERSONAL AUTHOR: DEPINTO, JOSEPH V.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *HEAVY METALS; *LABORATORY PROCEDURES; *LITERATURE REVIEWS; MODELS; METALS; *RESEARCH REVIEWS; SAMPLING; *SAMPLING TECHNIQUES; *SEDIMENTS; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 999-1007P.

ABSTRACT: THIS ARTICLE PRESENTS A LITERATURE REVIEW OF AQUATIC SEDIMENTS. ANALYTICAL AND SAMPLING TECHNIQUES ARE DISCUSSED. FINDINGS IN SEDIMENTS SUCH AS HEAVY METALS AND NUTRIENTS ARE REVIEWED. ALSO DISCUSSED ARE BIOLOGICAL ACTIVITY, ORGANICS, AND MODEL TYPES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V53 N6

IRIS ACCESSION NUMBER: EW006730

PUBLICATION DATE: JUN 81

TITLE: EFFECTS OF POLLUTION ON FRESHWATER INVERTEBRATES.

PERSONAL AUTHOR: BUKKEMA, A. L., JR.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ENVIRONMENT; *ENVIRONMENTAL INFLUENCES; *INVERTEBRATES; *LITERATURE REVIEWS; MICROBIOLOGY; *RESEARCH REVIEWS; *SAMPLING; *TOXICITY; *WATER POLLUTION CONTROL; ZOOLOGY

DESCRIPTIVE NOTE: 1007-1015P.

ABSTRACT: THIS ARTICLE IS A LITERATURE REVIEW ON EFFECTS OF POLLUTION ON FRESHWATER INVERTEBRATES. SAMPLING METHODS, MICROCOSMS, COMMUNITIES, CLADOCERA, OTHER ZOOPLANKTERS, AMPHIPODS, DECAPODS, INSECTS, MOLLUSKS, AND PROTOZOA ARE REVIEWED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V53 N6

IRIS ACCESSION NUMBER: EW006731

PUBLICATION DATE: JUN 81

TITLE: FRESHWATER MACROINVERTEBRATES.

PERSONAL AUTHOR: QUIGLEY, M. A.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; BIOLOGY; *ENVIRONMENTAL INFLUENCES; *INVERTEBRATES; *LITERATURE REVIEWS; ORGANIC WASTES; *RESEARCH REVIEWS; *SAMPLING; *WATER POLLUTION CONTROL; *ZOOLOGY

DESCRIPTIVE NOTE: 1015-1027P.

ABSTRACT: WATER POLLUTION AND ITS EFFECT ON FRESHWATER MACROINVERTEBRATES IS DISCUSSED. INDEXES AND INDICATORS ARE PRESENTED. OTHER SECTIONS INCLUDED ARE ORGANIC AND OTHER WASTES, PHYSICAL ENVIRONMENTAL ALTERATIONS, DISTRIBUTION AND HABITAT REQUIREMENTS, PRODUCTION, FOOD AND FEEDING, PERIODICITY AND DRIFT, ANIMAL-SEDIMENT INTERACTIONS, AND METHODS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V53 N6

IRIS ACCESSION NUMBER: EW006732

PUBLICATION DATE: JUN 81

TITLE: EFFECTS OF POLLUTION ON FRESHWATER FISH.

PERSONAL AUTHOR: SPEHAR, R. L.; AND OTHERS

DESCRIPTOR: *EFFLUENTS; *ENVIRONMENTAL INFLUENCES; *FISH; *INSECTICIDES; *INDUSTRIAL WASTES; *LITERATURE REVIEWS; *POLLUTION; *RESEARCH REVIEWS; TOXICITY; *TOXIC SUBSTANCES; *WASTEWATER; WATER POLLUTION CONTROL; *WATER QUALITY

DESCRIPTIVE NOTE: 1028-1076P.

ABSTRACT: THIS ARTICLE REVIEWS THE EFFECTS OF POLLUTION ON FRESHWATER FISH. EFFECTS OF WATER QUALITY, CHEMICAL POLLUTANTS, AND INDUSTRIAL AND MUNICIPAL EFFLUENTS ARE

DISCUSSED. INCLUDED IS A TABLE WHICH SUMMARIZES THE ACUTE AND CHRONIC TOXICITY OF INORGANIC AND ORGANIC POLLUTANTS TO FRESHWATER FISH.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V53 N6

IRIS ACCESSION NUMBER: EW006733

PUBLICATION DATE: JUN 81

TITLE: SUBSTRATE ASSOCIATED MICROFAUNA.

PERSONAL AUTHOR: LANZA, G. R.; WALLER, W. T.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *LITERATURE REVIEWS; *MICROBIOLOGY; *RESEARCH REVIEWS; *SAMPLING TECHNIQUES; *TOXICITY; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 1076-1083P.

ABSTRACT: THIS ARTICLE REVIEWS WATER POLLUTION AS IT AFFECTS SUBSTRATE ASSOCIATED MICROFAUNA. SAMPLING, PRESERVING, AND PHYSIOLOGICAL CHARACTERIZATION ARE DISCUSSED, AS WELL AS ECOLOGY AND TOXICITY.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V53 N6

IRIS ACCESSION NUMBER: EW006734

PUBLICATION DATE: JUN 81

TITLE: MICROBIOLOGY OF WATER.

PERSONAL AUTHOR: CELDREICH, EDWIN E.

DESCRIPTOR: *ESTUARIES; *INDICATOR SPECIES; *LITERATURE REVIEWS; *LAKES; *MICROBIOLOGY; *RESEARCH REVIEWS; *RESERVOIRS; *STREAMS; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 1083-1098P.

ABSTRACT: THIS ARTICLE IS A LITERATURE REVIEW ON THE MICROBIOLOGY OF WATER. MICROBIAL INDICATORS OF POLLUTION ARE LISTED. THE MICROBIOLOGY OF RIVER SYSTEMS, COASTAL AREAS AND OF NATURAL LAKES AND IMPOUNDMENTS IS PRESENTED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V53 N6

IRIS ACCESSION NUMBER: EW006735

PUBLICATION DATE: JUN 81

TITLE: MICROBIOLOGY: METHODOLOGY AND QUALITY ASSURANCE.

PERSONAL AUTHOR: BORDNER, ROBERT H.

75

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *LABORATORY TECHNIQUES; *LABORATORY PROCEDURES; *LITERATURE REVIEWS; *MICROBIOLOGY; *RESEARCH REVIEWS; *SAMPLING METHODS; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 1098-1107P.

ABSTRACT: THIS ARTICLE REVIEWS METHODOLOGY AND QUALITY ASSURANCE IN MICROBIOLOGY. INCLUDED IS AN EXTENSIVE DISCUSSION ON METHODOLOGY, INCLUDING SAMPLING, DIRECT TEST, MOST PROBABLE NUMBER, MEMBRANE FILTER, PLATING, BIOMASS, AND IDENTIFICATION PROCEDURES. RAPID METHODS AND QUALITY ASSURANCE ARE ALSO DISCUSSED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V53 N6

IRIS ACCESSION NUMBER: EW006736

PUBLICATION DATE: JUN 81

TITLE: MICROBIOLOGY OF GROUND WATER.

PERSONAL AUTHOR: ALLEN, MARTIN J.

DESCRIPTOR: *AQUIFERS; *DISINFECTION; *GROUNDWATER; *LITERATURE REVIEWS; *LEACHING; *MICROBIOLOGY; *RESEARCH REVIEWS; *WATER POLLUTION

DESCRIPTIVE NOTE: 1107-1109P.

ABSTRACT: THIS ARTICLE REVIEWS THE MICROBIOLOGY OF GROUNDWATER. CONTAMINATION OF AQUIFERS AND TYPES OF ORGANISMS FOUND ARE DISCUSSED. EFFECTIVENESS OF DISINFECTION TECHNIQUES IS ALSO PRESENTED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V53 N6

IRIS ACCESSION NUMBER: EW006737

PUBLICATION DATE: JUN 81

TITLE: MICROBIOLOGY OF POTABLE WATER.

PERSONAL AUTHOR: ALLEN, MARTIN J.

DESCRIPTOR: *GRANULAR ACTIVATED CARBON; *CHLORINATION; *CLASSIFICATION; *DRINKING WATER; *LITERATURE REVIEWS; *MICROBIOLOGY; *POTABLE WATER; *RESEARCH REVIEWS; *WATER POLLUTION

DESCRIPTIVE NOTE: 1109-1112P.

ABSTRACT: THIS ARTICLE REVIEWS THE MICROBIOLOGY OF POTABLE WATER. USE OF GRANULAR ACTIVATED CARBON AND MICROBIAL GROWTH ON GAC SURFACES ARE DISCUSSED. CLASSIFICATION SCHEMES DEVELOPED TO IDENTIFY MICROORGANISMS ARE PRESENTED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION -

REVIEW ISSUE, V33 N6

IRIS ACCESSION NUMBER: EW006738

PUBLICATION DATE: JUN 81

TITLE: MICROBIOLOGY: DETECTION OF BACTERIAL PATHOGENS AND THEIR OCCURRENCE.

PERSONAL AUTHOR: REASONER, DONALD J.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *BACTERIOLOGY;
*BACTERIA; *LABORATORY PROCEDURES; *LITERATURE REVIEWS;
*MICROBIOLOGY; *PATHOGENS; *RESEARCH REVIEWS; *SALMONELLA;
*WATER POLLUTION

DESCRIPTIVE NOTE: 111201134P.

ABSTRACT: THIS ARTICLE REVIEWS THE DETECTION OF BACTERIAL PATHOGENS AND THEIR OCCURRENCE. A TABLE IS INCLUDED LISTING OCCURRENCE OF SALMONELLA SEROTYPES AND RELATED ENTERIC PATHOGENS IN BOTH WARM AND COLD BLOODED ANIMALS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V33 N6

IRIS ACCESSION NUMBER: EW006739

PUBLICATION DATE: JUN 81

TITLE: DISEASE OUTBREAKS CAUSED BY DRINKING WATER.

PERSONAL AUTHOR: CRAUN, GUNTHER F.

DESCRIPTOR: *CHEMICALS; *DRINKING WATER; *DISEASES;
*DISEASE CONTROL; E. COLI; *LITERATURE REVIEWS; *POTABLE
WATER; *RESEARCH REVIEWS; *WATER POLLUTION

DESCRIPTIVE NOTE: 1134-1138P.

ABSTRACT: THIS ARTICLE REVIEWS DISEASE OUTBREAKS CAUSED BY DRINKING WATER. CHEMICAL POISONING, CHOLERA, DRACONTIASIS, GIARDIASIS, HEPATITIS, SHIGELLA, AND TORIGENIC E. COLI ARE ALL REVIEWED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V33 N6

IRIS ACCESSION NUMBER: EW006740

PUBLICATION DATE: JUN 81

TITLE: MICROBIOLOGY: DETECTION, OCCURRENCE, AND REMOVAL OF VIRUSES.

PERSONAL AUTHOR: ROY, D; AND OTHERS

DESCRIPTOR: *LABORATORY PROCEDURES; *LITERATURE REVIEWS;

*MICROBIOLOGY; *OPERATIONS (WASTEWATER); *RESEARCH REVIEWS;
*VIRUSES; WATER POLLUTION; WATER QUALITY; *WASTEWATER
TREATMENT

DESCRIPTIVE NOTE: 1138-1142P.

ABSTRACT: THIS ARTICLE REVIEWS DETECTION, OCCURRENCE, AND REMOVAL OF VIRUSES. MOST NEW DEVELOPMENTS DISCUSSED IN DETECTION AND ISOLATION OF VIRUSES IN WATER SAMPLES INVOLVE APPLICATION OF THE ADSORPTION-ELUTION TECHNIQUE USING FILTER MEDIA. SURVIVAL OF VIRUSES, VIRUSES IN SOIL-SLUDGE SYSTEMS, REMOVAL OF VIRUSES BY TREATMENT PROCESSES, VIRUSES IN SHELLFISH, AND INDICATORS OF VIRUSES ARE ALSO REVIEWED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V33 N6

IRIS ACCESSION NUMBER: EW006741

PUBLICATION DATE: JUN 81

TITLE: MICROBIOLOGY OF WASTEWATER TREATMENT.

PERSONAL AUTHOR: PIPES, WESLEY O.

DESCRIPTOR: ACTIVATED SLUDGE; *INDUSTRIAL WASTES;
*LITERATURE REVIEWS; LAND DISPOSAL; *MICROBIOLOGY;
*OPERATIONS (WASTEWATER); *PATHOGENS; RESEARCH REVIEWS;
*SLUDGE; *TRICKLING FILTERS; *WASTEWATER TREATMENT; WATER
POLLUTION

DESCRIPTIVE NOTE: 1142-1143P.

ABSTRACT: THIS ARTICLE REVIEWS THE MICROBIOLOGY OF WASTEWATER TREATMENT. PROCESSES AND PROBLEMS SUCH AS ACTIVATED SLUDGE, TRICKLING FILTERS, OXIDATION PONDS, LAND DISPOSAL, SLUDGE TREATMENT PROCESSES, INDUSTRIAL WASTES, AND INDICATORS AND PATHOGENS ARE REVIEWED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION - REVIEW ISSUE, V33 N6

IRIS ACCESSION NUMBER: EW006756

PUBLICATION DATE: 81

TITLE: BIOLOGICAL FLUIDIZED BED TREATMENT OF WATER AND WASTEWATER. PROCEEDINGS OF THE WRC/UNIST CONFERENCE, MANCHESTER, APRIL 14-18, 1980.

PERSONAL AUTHOR: COOPER, P. F.

DESCRIPTOR: *BIOLOGICAL FLUIDIZED BEDS; *BIODEGRADATION;
*DESIGN; *ECONOMICS; *EQUIPMENT; *FACILITIES; *MANAGEMENT;
*OPERATIONS (WATER); *OPERATIONS (WASTEWATER); *RESEARCH;
*WATER QUALITY; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 300P. PRICE: \$99.25

ABSTRACT: THE APPLICATION OF BIOLOGICAL FLUIDIZED BED

TREATMENT TO IMPROVE WATER AND WASTEWATER QUALITY IS ADDRESSED. PROMISING TECHNOLOGIES, EXPERIMENTAL FINDINGS, PROCESS EVALUATIONS, AND ECONOMIC CONSIDERATIONS ARE EXAMINED.

AVAILABILITY: WILEY INTERSCIENCE, A DIVISION OF JOHN WILEY & SONS, INC., 1 WILEY DRIVE, SOMERSET, NJ 08873

IRIS ACCESSION NUMBER: EW006764

PUBLICATION DATE: 80

TITLE: OFFICIAL METHODS OF ANALYSIS.

PERSONAL AUTHOR: HORWITZ, WILLIAM

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ANALYTICAL CHEMISTRY; *CHEMISTRY; *HANDBOOKS; *HEALTH; *LABORATORY TECHNIQUES; *LABORATORY PROCEDURES; *REGULATIONS; *RESEARCH; *STANDARDS; *SAFETY

DESCRIPTIVE NOTE: 1038P. PRICE: \$78.00 + \$3.00 FOR POSTAGE AND HANDLING.

ABSTRACT: PRESENTED IS A GUIDE TO PROVIDE RESEARCH AND REGULATORY CHEMISTS AND OTHER SCIENTISTS WITH RELIABLE METHODS OF ANALYSIS FOR DETERMINING THE COMPOSITION OF COMMODITIES SUBJECT TO LEGAL CONTROL.

AVAILABILITY: ASSOCIATION OF OFFICIAL ANALYTICAL CHEMISTS, 1111 N. 19TH ST., DEPT. 51, ARLINGTON, VA 22209

IRIS ACCESSION NUMBER: EW006809

PUBLICATION DATE: 80

TITLE: DIRECTORY OF ENVIRONMENTAL EDUCATION RESOURCES: A GUIDE TO NATIONAL AND INTERNATIONAL ORGANIZATIONS THAT PROVIDE INFORMATION ON THE ENVIRONMENT.

PERSONAL AUTHOR: MORRIS, SHAREE

DESCRIPTOR: *ECOLOGY; *ENVIRONMENTAL EDUCATION; ENVIRONMENTAL RESEARCH; *NATURAL RESOURCES; *ORGANIZATIONS (GROUPS); PRIVATE AGENCIES; PROFESSIONAL ASSOCIATIONS; PUBLIC AGENCIES; *RESOURCE MATERIALS; SCIENCE EDUCATION; WILDLIFE

DESCRIPTIVE NOTE: PRICE: \$3.95 PLUS \$0.90 POSTAGE.

ABSTRACT: NEARLY 200 NATIONAL AND INTERNATIONAL ORGANIZATIONS WHICH PROVIDE INFORMATION AND SERVICES RELATED TO THE ENVIRONMENT ARE DESCRIBED IN THIS GUIDE. INCLUDED ARE PRIVATE GROUPS, GOVERNMENT AGENCIES, PROFESSIONAL ORGANIZATIONS, FOUNDATIONS, PUBLISHERS, AND BUSINESSES. LISTED FOR EACH SOURCE ARE THE NAME, ADDRESS, CONTACT PERSON, CHIEF INTERESTS, KINDS OF HELP AVAILABLE, AND THE TITLES OF PUBLICATIONS AND FILMS. A SUBJECT GUIDE AND ALPHABETICAL INDEX PROVIDE CROSS REFERENCING. THE DIRECTORY CONCLUDES WITH A COMPILATION OF ADDITIONAL INFORMATION

SOURCES AND A BIBLIOGRAPHY OF CAREER INFORMATION.

AVAILABILITY: CENTER FOR ENVIRONMENTAL EDUCATION, 1925 K ST., N.W., SUITE 206, WASHINGTON, DC 20006

IRIS ACCESSION NUMBER: EW006812

PUBLICATION DATE: MAY 79

TITLE: NPDES COMPLIANCE SAMPLING INSPECTION MANUAL.

DESCRIPTOR: *COMPLIANCE; *ENGINEERING; *EQUIPMENT; *FLOW MEASUREMENT; *GUIDELINES; *INSPECTION; *MANAGEMENT; *OPERATIONS (WASTEWATER); *REGULATIONS; STANDARDS; *SAMPLING; WASTEWATER FLOW; *WATER POLLUTION CONTROL; *WATER QUALITY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 155P. PB01-153215

ABSTRACT: PRESENTED ARE GUIDELINES FOR PERFORMING NPDES COMPLIANCE SAMPLING INSPECTIONS BY STATE AND FEDERAL COMPLIANCE INSPECTORS. CONTENTS INCLUDE: (1) NPDES PERMIT SAMPLING REQUIREMENTS; (2) SAMPLE COLLECTION; (3) AUTOMATIC SAMPLERS; (4) WASTEWATER FLOW MEASUREMENT; (5) QUALITY ASSURANCE; AND (6) CHAIN OF CUSTODY PROCEDURES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006813

PUBLICATION DATE: SEP 79

TITLE: COMMUNITY PLANNING FOR WATER RESOURCES MANAGEMENT.

DESCRIPTOR: *ADMINISTRATION; *COMMUNITY DEVELOPMENT; ECONOMICS; LEGISLATION; *MANAGEMENT; *PLANNING; RURAL AREAS; URBANIZATION; *WATER RESOURCES; *WATER USE

DESCRIPTIVE NOTE: 28P. PDB1-144867

ABSTRACT: PRESENTED ARE GUIDELINES TO ASSIST INDIVIDUALS IN THE CREATION OF A WATER RESOURCE MANAGEMENT PLAN TO SUIT THEIR COMMUNITY. THE PLANNING PROCESS INCLUDES: (1) DEFINITION OF PROBLEMS AND GOALS; (2) COLLECTION AND STUDY OF AVAILABLE DATA; (3) GENERATION OF A SET OF ALTERNATIVES; (4) EVALUATION OF THE POSSIBLE EFFECTS OF EACH ALTERNATIVE; AND (5) SELECTION OF A COURSE OF ACTION LEADING FROM POINT OF DECISION TO IMPLEMENTATION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006844

PUBLICATION DATE: FEB 80

TITLE: IMPLEMENTATION PROGRAM FOR TECHNICAL ASSISTANCE.

AUDIT AND EXAMINATION SERVICE.

DESCRIPTOR: *EVALUATION; *EXAMINATIONS; *MANAGEMENT; MAINTENANCE; *OPERATIONS (WASTEWATER); *OPERATIONS (WATER); *POST SECONDARY EDUCATION; *PLANNING; PERSONNEL; *TECHNICAL ASSISTANCE; *TRAINING; *TESTING; *UTILITIES; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 43P.

ABSTRACT: OUTLINED IS A TWO-YEAR PLAN OF ACTION FOR THE ASSOCIATION OF BOARDS OF CERTIFICATION TO PROVIDE A SYSTEM OF ASSURING THE COMPETENCY OF OPERATORS AND OTHER PERSONNEL IN WATER AND WASTEWATER UTILITIES. SERVICES STRESSED ARE: (1) TECHNICAL ASSISTANCE; (2) PROGRAM AUDIT; AND (3) EXAMINATION SERVICE.

AVAILABILITY: OFFICE OF WATER PROGRAM OPERATIONS, U.S. ENVIRONMENTAL PROTECTION AGENCY, WASHINGTON, DC

IRIS ACCESSION NUMBER: EW006845

PUBLICATION DATE: AUG 77

TITLE: ADMINISTRATIVE REVIEW OF THE ABC CERTIFICATION SYSTEM.

DESCRIPTOR: *CERTIFICATION; *EVALUATION; *EDUCATIONAL OBJECTIVES; INSTRUCTION; MANAGEMENT; *OPERATOR TRAINING; OPERATIONS (WATER); OPERATIONS (WASTEWATER); PERSONNEL; *PLANNING; *STATE PROGRAMS; *TRAINING; TESTING; *UTILITIES; *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 56P.

ABSTRACT: EXAMINED IS THE EFFECTIVENESS OF THE ASSOCIATION OF BOARDS OF CERTIFICATION IN THE IMPROVEMENT OF THE OPERATOR TRAINING AND CERTIFICATION PROGRAMS IN WATER AND WASTEWATER UTILITIES. IDENTIFIED ARE THE ADVANTAGES OF ADOPTING THE ABC CERTIFICATION SYSTEM AS A STATE-ADMINISTERED PROGRAM, THE PROBLEMS WHICH MIGHT BE ENCOUNTERED, AND PROCEDURES FOR ESTABLISHING IT AS A UNIFORM APPROACH TO SELF-EVALUATION FOR EVERY PROGRAM IN NORTH AMERICA.

AVAILABILITY: OFFICE OF WATER PROGRAM OPERATIONS, U.S. ENVIRONMENTAL PROTECTION AGENCY, WASHINGTON, DC

IRIS ACCESSION NUMBER: EW006846

PUBLICATION DATE: JUL 76

TITLE: ROLES AND RESPONSIBILITIES FOR DEVELOPING A COMPREHENSIVE STATE WATER AND WASTEWATER OPERATOR TRAINING PROGRAM.

DESCRIPTOR: *EDUCATIONAL PROGRAMS; *EDUCATIONAL NEEDS; *INSTRUCTION; *OPERATOR TRAINING; *REGULATIONS; *STATE PROGRAMS; *TRAINING; *WATER TREATMENT; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 37P.

ABSTRACT: DESCRIBED IS THE CRITERIA NECESSARY FOR A STATE PROGRAM TO PROVIDE AN ADEQUATE LEVEL OF TRAINING AND EDUCATION FOR THE OPERATORS OF WATER AND WASTEWATER FACILITIES. SECTIONS INCLUDE: (1) BASIS FOR EFFECTIVE TRAINING PROGRAMS; (2) ESTABLISHMENT OF A BASIS FOR TRAINING; (3) DEVELOPMENT OF TRAINING MATERIAL AND METHODS; (4) STANDARDIZED DELIVERY SYSTEMS; AND (5) MEANS TO PROVIDE COORDINATION AND CONTROL.

AVAILABILITY: OFFICE OF WATER PROGRAM OPERATIONS, U.S. ENVIRONMENTAL PROTECTION AGENCY, WASHINGTON, DC

IRIS ACCESSION NUMBER: EW006848

PUBLICATION DATE: JUN 81

TITLE: CONGRESSIONAL ACTION NEEDED TO PROVIDE A BETTER FOCUS ON WATER-RELATED RESEARCH ACTIVITIES.

DESCRIPTOR: *ADMINISTRATION; *CONSERVATION; *EVALUATION; *LEGISLATION; *MANAGEMENT; *PLANNING; *RESEARCH NEEDS; STANDARDS; *TECHNOLOGY; *WATER RESOURCES; *WATER SUPPLY; *WATER QUALITY

DESCRIPTIVE NOTE: 79P.

ABSTRACT: STRESSED IS THE NEED TO DEVELOP AND IMPLEMENT WATER CONSERVATION AND TECHNOLOGIES TO ASSURE ADEQUATE WATER SUPPLIES. CONTENTS INCLUDE: (1) COMPARATIVE ASSESSMENT OF WATER IS NEEDED; (2) FORMAL PLANNING SHOULD IMPROVE TECHNOLOGY DEVELOPMENT; AND (3) NEED FOR ASSIGNING RESPONSIBILITY TO IMPLEMENT SECTION 406 OF THE WATER RESEARCH AND DEVELOPMENT ACT OF 1978.

AVAILABILITY: U.S. GENERAL ACCOUNTING OFFICE, DOCUMENT HANDLING AND INFORMATION SERVICES FACILITY, P. O. BOX 6013, GAITHERSBURG, MD 20760

IRIS ACCESSION NUMBER: EW006855

PUBLICATION DATE: MAY 81

TITLE: THERMAL POLLUTION: HYDROLOGY AND HYDRODYNAMICS. 1964-APRIL, 1981. (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *AQUATIC ENVIRONMENTS; *BIBLIOGRAPHIES; BIOLOGY; *EFFLUENTS; HYDRODYNAMICS; *HYDROLOGY; *RESEARCH; *THERMAL POLLUTION; *WATER; *WATER QUALITY

DESCRIPTIVE NOTE: 238P. PB81-806127

ABSTRACT: ASPECTS OF THE HYDROLOGY AND HYDRODYNAMICS OF HEATED EFFLUENTS ARE COVERED IN THIS BIBLIOGRAPHY, INCLUDING MIXING, DIFFUSION, MODELING, HEAT TRANSFER, AND FLOW. THIS UPDATED BIBLIOGRAPHY CONTAINS 229 CITATIONS, 6 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285

PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006856

PUBLICATION DATE: MAY 81

TITLE: THERMAL POLLUTION: BIOLOGICAL EFFECTS. 1974-APRIL, 1981. (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *AQUATIC ENVIRONMENTS; *BIBLIOGRAPHIES; BIOLOGY; *ECOLOGY; *EFFLUENTS; *INDUSTRIAL WASTES; *POLLUTION; *PHYSIOLOGY; *RESEARCH; *THERMAL POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 300P. PB81-006135

ABSTRACT: ABSTRACTS COVERING THE EFFECTS OF HEATED EFFLUENTS ON FISH, SHELLFISH, MICROORGANISMS, AND PLANTS IN BOTH FRESH AND SALT WATER ARE PRESENTED. TOPICS INCLUDE EFFECTS ON GROWTH, ECOLOGY, METABOLISM, HEAT TOLERANCE, AND PRODUCTIVITY. THE EFFLUENT SOURCES ARE BOTH POWER AND INDUSTRIAL PLANTS. THIS UPDATED BIBLIOGRAPHY CONTAINS 291 CITATIONS, 43 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006857

PUBLICATION DATE: MAY 81

TITLE: THE BIOLOGICAL EFFECTS OF OIL SPILLS. 1970-MAY, 1981. (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *AQUATIC ENVIRONMENTS; ANIMALS; *BIBLIOGRAPHIES; BIOLOGY; CHEMICAL ANALYSIS; *ECOLOGY; MARINE BIOLOGY; MICROORGANISMS; *OIL SPILLS; PLANTS; *POLLUTION; *RESEARCH; *WATER QUALITY

DESCRIPTIVE NOTE: 253P. PB81-006200

ABSTRACT: THIS VOLUME OF SELECTED ABSTRACTS COVERS ASPECTS OF THE BIOLOGICAL AND ECOLOGICAL EFFECTS OF OIL SPILLS IN SALT AND FRESH WATER. THE EFFECTS ON MICROORGANISMS, PLANTS, AND ANIMALS ARE CONSIDERED, ALONG WITH RESEARCH ON THE RESIDUES AND METABOLIC PRODUCTS OF VARIOUS OIL COMPONENTS. THIS UPDATED BIBLIOGRAPHY CONTAINS 244 CITATIONS, 115 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006858

PUBLICATION DATE: MAY 81

TITLE: THE BIOLOGICAL EFFECTS OF OIL SPILLS. 1975-MAY,

1981. (CITATIONS FROM THE AMERICAN PETROLEUM INSTITUTE DATA BASE).

DESCRIPTOR: *AQUATIC ENVIRONMENTS; ANIMALS; *BIBLIOGRAPHIES; BIOLOGY; CHEMICAL ANALYSIS; *ECOLOGY; MARINE BIOLOGY; MICROORGANISMS; *OIL SPILLS; PLANTS; *POLLUTION; *RESEARCH; *WATER QUALITY

DESCRIPTIVE NOTE: 284P. PB81-006218

ABSTRACT: THE SELECTED ABSTRACTS COVER ASPECTS OF THE BIOLOGICAL AND ECOLOGICAL EFFECTS OF OIL SPILLS IN SALT AND FRESH WATER. THE EFFECT ON MICROORGANISMS, PLANTS, AND ANIMALS ARE CONSIDERED, ALONG WITH RESEARCH ON THE RESIDUES AND METABOLIC PRODUCTS OF VARIOUS OIL COMPONENTS. THIS UPDATED BIBLIOGRAPHY CONTAINS 275 CITATIONS, 42 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006859

PUBLICATION DATE: MAY 81

TITLE: WATER QUALITY ACTS: STANDARDS, REGULATIONS, AND REACTIONS. JANUARY, 1970-MAY, 1981 (CITATIONS FROM POLLUTION ABSTRACTS).

DESCRIPTOR: *BIBLIOGRAPHIES; ECONOMICS; ENFORCEMENT; *ENVIRONMENT; IMPLEMENTATION; *LAWS; *LEGISLATION; POLITICAL ISSUES; *PUBLIC OPINION; *REGULATIONS; *RESEARCH REPORTS; *STANDARDS; *WATER QUALITY

DESCRIPTIVE NOTE: 182P. PB81-006881

ABSTRACT: CITATIONS IN THIS RETROSPECTIVE BIBLIOGRAPHY COVER STANDARDS, REGULATIONS, AND PUBLIC AND SPECIAL INTEREST REACTIONS TO VARIOUS WATER QUALITY ACTS OR LAWS. TECHNICAL, ENVIRONMENTAL, ECONOMIC, AND POLITICAL ASPECTS OF THESE LAWS ARE CONSIDERED. ATTENTION IS GIVEN TO METHODS AND PROBLEMS OF IMPLEMENTATION AND ENFORCEMENT. CONTAINS 225 CITATIONS FULLY INDEXED AND INCLUDES A TITLE LIST.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006860

PUBLICATION DATE: 80

TITLE: SELECTED WATER RESOURCES ABSTRACTS, ANNUAL CUMULATED INDEXES TO VOLUME 13, 1980. PART 1 AUTHOR, ORGANIZATION, ACCESSION NUMBER. PART 2 SUBJECT.

DESCRIPTOR: BIBLIOGRAPHIES; BIOLOGY; CONSERVATION; ENGINEERING; *ENVIRONMENT; *INDEXES; LAW; *LIFE SCIENCES; MANAGEMENT; *PHYSICAL SCIENCES; *RESEARCH; *SOCIAL SCIENCES; *WATER RESOURCES; WATER SUPPLY; WATER USE

DESCRIPTIVE NOTE: 961P. SWRA-80-N25-P-1-2

ABSTRACT: SELECTED WATER RESOURCES ABSTRACTS, A SEMIMONTHLY JOURNAL, INCLUDES ABSTRACTS OF CURRENT AND EARLIER PERTINENT MONOGRAPHS, JOURNAL ARTICLES, REPORTS, AND OTHER PUBLICATION FORMATS. THESE DOCUMENTS COVER WATER RESOURCES AS TREATED IN THE LIFE, PHYSICAL, AND SOCIAL SCIENCES AND THE RELATED ENGINEERING AND LEGAL ASPECTS OF THE CHARACTERISTICS, SUPPLY CONDITION, CONSERVATION, CONTROL, USE, OR MANAGEMENT OF WATER RESOURCES. EACH ABSTRACT INCLUDES A FULL BIBLIOGRAPHIC CITATION AND A SET OF DESCRIPTORS WHICH ARE LISTED IN THE WATER RESOURCES THESAURUS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006864

PUBLICATION DATE: JAN 81

TITLE: WATER POLLUTION IN ESTUARIES AND COASTAL ZONES. 1978-DECEMBER, 1980. (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *BIBLIOGRAPHIES; *COASTAL AREAS; DEVELOPMENT; *ESTUARIES; HYDROLOGY; *LAND USE; PLANNING; *POLLUTION; RESEARCH REPORTS; SEWAGE; *URBAN AREAS; URBANIZATION; *WASTE DISPOSAL; *WATER POLLUTION; WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 154P. PB81-801636

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS SELECTED ABSTRACTS OF RESEARCH REPORTS COVERING STUDIES DEALING WITH WATER POLLUTION FROM ESTUARINE AND COASTAL DEVELOPMENT. THE EFFECTS OF THIS POLLUTION, AND ITS CONTROL. THE REPORTS ARE GENERAL IN NATURE SO AS TO BE OF INTEREST TO ANY COASTAL AREA. THE TOPICS INCLUDE POLLUTION AS RELATED TO URBANIZATION, GOVERNMENT ACTIONS, COASTAL PLANNING, NATURAL RESOURCE DEVELOPMENT, AND SEWAGE AND SOLID WASTE DISPOSAL. SPECIFIC BIOLOGICAL AND OCEANOGRAPHIC STUDIES HAVE BEEN EXCLUDED. THIS UPDATED BIBLIOGRAPHY CONTAINS 112 CITATIONS, 42 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006866

PUBLICATION DATE: SEP 81

TITLE: LOOP EQUATIONS WITH UNKNOWN PIPE CHARACTERISTICS.

PERSONAL AUTHOR: COFMAN, EMANUEL; RODEH, MICHAEL

DESCRIPTOR: *ALGORITHMS; *COMPUTER APPLICATIONS; *COMPUTER PROGRAMS; *DESIGN; *MATHEMATICAL APPLICATIONS; *PIPE FLOW; *PIPES; PUMPS; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: 1047-1060P.

ABSTRACT: UNKNOWN PIPE CHARACTERISTICS MAY BE HELPFUL IN

THE DESIGN AND OPERATION OF WATER DISTRIBUTION NETWORKS. BY USING UNKNOWN PIPE CHARACTERISTICS IT BECOMES EASIER TO SELECT APPROPRIATE PIPES, TO CHOOSE BOOSTERS, AND TO REGULATE THE FLOW THROUGH PUMPS USING REGULATING VALVES. AN ALGORITHM IS PRESENTED FOR AUTOMATICALLY CONSTRUCTING AND SOLVING EQUATIONS DESCRIBING THE BEHAVIOR OF WATER DISTRIBUTION NETWORKS WHEN SOME PIPE CHARACTERISTICS ARE UNKNOWN. IT IS BASED ON LOOP EQUATIONS AND IS THEREFORE APPROPRIATE FOR IMPLEMENTATION ON MINICOMPUTERS. SEVERAL APPLICATIONS AND EXPERIMENTS ARE DESCRIBED.

AVAILABILITY: JOURNAL OF THE HYDRAULICS DIVISION, V107 N9

IRIS ACCESSION NUMBER: EW006867

PUBLICATION DATE: SEP 81

TITLE: DEMAND FORECASTING IN WATER SUPPLY NETWORKS.

PERSONAL AUTHOR: PERRY, PATRICK F.

DESCRIPTOR: *COMPUTER APPLICATIONS; *COMPUTER PROGRAMS; *CONSUMER DEMAND; *ECONOMIC FACTORS; *FORECASTING; MATHEMATICAL APPLICATIONS; *MATHEMATICAL MODELS; *OPERATIONS (WATER); *UNITED KINGDOM; *WATER DEMAND; *WATER SUPPLY

DESCRIPTIVE NOTE: 1077-1087P.

ABSTRACT: THE PROBLEM OF FORECASTING CONSUMER WATER DEMANDS OVER A 24 HOUR PERIOD IS FORMULATED WITHIN THE FRAMEWORK OF AN ON-LINE COMPUTER BASED PUMP SCHEDULING SCHEME FOR OPTIMUM OPERATIONAL CONTROL OF A WATER SUPPLY NETWORK. TWO WELL KNOWN FORECASTING TECHNIQUES ARE CONSIDERED AND COMPARED, IN TERMS OF ACCURACY AND COMPUTATIONAL FEASIBILITY, USING REAL DATA FROM A NETWORK IN THE UNITED KINGDOM.

AVAILABILITY: JOURNAL OF THE HYDRAULICS DIVISION, V107 N9

IRIS ACCESSION NUMBER: EW006868

PUBLICATION DATE: SEP 81

TITLE: SEDIMENT-CONTAMINANT TRANSPORT MODEL.

PERSONAL AUTHOR: ONICHI, YASUO

DESCRIPTOR: *ANALYTICAL TECHNIQUES; CASE STUDIES; *CONTAMINANTS; *ESTUARIES; HAZARDOUS MATERIALS; *JAMES RIVER; *MATHEMATICAL MODELS; *POLLUTION CONTROL; *PESTICIDES; *RIVERS; *SEDIMENTS; *WATER POLLUTION

DESCRIPTIVE NOTE: 1089-1107P.

ABSTRACT: THE UNSTEADY, TWO-DIMENSIONAL MODEL, FETRA, WAS DEVELOPED TO SIMULATE BOTH SEDIMENT AND CONTAMINANT TRANSPORT IN RIVERS AND ESTUARIES. THE MODEL CONSISTS OF THREE SUBMODELS WHICH, WHEN USED JOINTLY ACCURATELY DEPICT THE INTERACTION AND MIGRATION OF SEDIMENT, DISSOLVED CONTAMINANTS, AND PARTICULATE CONTAMINANTS. FETRA SOLVES THE MIGRATION (TRANSPORT, DEPOSITION AND RESUSPENSION) OF

COHESIVE AND NONCOHESIVE SEDIMENTS AND PARTICULATE CONTAMINANTS OF THREE SEDIMENT-SIZE FRACTIONS. PETRA WAS APPLIED TO THE JAMES RIVER ESTUARY TO SIMULATE THE MIGRATION OF RIVER SEDIMENTS AND THE PESTICIDE, KEPONE. COMPUTED RESULTS PRODUCED BY THE MODEL ARE VERY SIMILAR TO FIELD-MEASURED DATA, MEANING THAT PETRA IS REASONABLY ACCURATE.

AVAILABILITY: JOURNAL OF THE HYDRAULICS DIVISION, V107 N9

IRIS ACCESSION NUMBER: EW006871

PUBLICATION DATE: MAR 81

TITLE: DIRECTORY OF TRAINING SOURCES.

PERSONAL AUTHOR: NATIONAL ENVIRONMENTAL TRAINING ASSOCIATION

DESCRIPTOR: *DIRECTORIES; *ENVIRONMENTAL TECHNICIANS; *INDEXES (LOCATORS); *OPERATIONS (WASTEWATER); *POLLUTION CONTROL; *POST SECONDARY EDUCATION; *TRAINING; *TRAINING PROGRAMS; *WATER TREATMENT; *WATER SUPPLY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 48P.

ABSTRACT: THIS DIRECTORY SERVES AS A REFERENCE FOR INDIVIDUALS, AGENCIES, AND ORGANIZATIONS SEEKING INFORMATION ON ENVIRONMENTAL TRAINING PROGRAMS. PROVIDED ARE ALPHABETICAL AND GEOGRAPHICAL LISTINGS OF TRAINING PROGRAMS AND SOURCES. INCLUDED IN THE LISTINGS IS INFORMATION ON PROGRAM VERIFICATION, TRAINING LEVEL(S), AND SPECIFIC AREAS OF INSTRUCTION.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON, DC 20037

IRIS ACCESSION NUMBER: EW006872

PUBLICATION DATE: 78

TITLE: POWER: A REPOSSESSION MANUAL.

PERSONAL AUTHOR: SPEETER, GREG

DESCRIPTOR: *ACTIVISM; *CITIZEN ROLE; *COMMUNITY GROUPS; *INSTRUCTIONAL MATERIALS; *MANUALS; *ORGANIZATIONS; *PLANNING; *PUBLIC PARTICIPATION; *POSTSECONDARY EDUCATION; *STRATEGIES

DESCRIPTIVE NOTE: 121P.

ABSTRACT: THIS MANUAL IS WRITTEN TO ENCOURAGE THE GROWTH OF A CULTURE OF COMMUNITY ORGANIZATION AND TO MAKE THE PROCESS OF MOBILIZING A COMMUNITY AND THE SKILLS INVOLVED KNOWN TO ALL THOSE WHO WILL BE A PART OF AN ORGANIZING PROCESS. CHAPTERS ARE WRITTEN CHRONOLOGICALLY, FROM THE FIRST STEP IN THE ORGANIZING PROCESS THROUGH THE LAST. EACH STEP (CHAPTER) IS DIVIDED INTO A SERIES OF METHODS OR SUBSTEPS WHICH ARE REQUIRED TO ACCOMPLISH A STEP. THE FIVE MAJOR CHAPTERS ARE:

DEVELOPING YOUR OWN THEORY OF COMMUNITY ORGANIZING; IDENTIFYING ISSUES; HOW STRUCTURE DEVELOPS POWER; TAKING ACTION; AND EVALUATION AND FUTURE DIRECTIONS.

AVAILABILITY: CITIZEN INVOLVEMENT TRAINING PROJECT, DIVISION OF CONTINUING EDUCATION, UNIVERSITY OF MASSACHUSETTS, AMHERST, MA 01003

IRIS ACCESSION NUMBER: EW006873

PUBLICATION DATE: APR 81

TITLE: QUANTIFICATION OF NON-POINT SOURCE SEDIMENTATION THROUGH DENSITOMETRIC ANALYSIS OF COLOR INFRARED AERIAL PHOTOGRAPHY.

PERSONAL AUTHOR: KEATING, TERRENCE J.; AND OTHERS

DESCRIPTOR: AERIAL PHOTOGRAPHY; *ANALYTICAL TECHNIQUES; *INFRARED PHOTOGRAPHY; *NONPOINT POLLUTION; *PHOTOGRAPHY; POLLUTION; RESEARCH; *SEDIMENTATION; SURFACE RUNOFF; *SUSPENDED SOLIDS; TURBIDITY; *WATER RESOURCES; *WATER SHEDS; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 79P. PDB1-209157

ABSTRACT: A METHOD FOR THE DETECTION, QUANTIFICATION, AND LOCATION OF NON-POINT POLLUTION SOURCES WAS ESTABLISHED BASED UPON THE USE OF AERIAL COLOR INFRARED PHOTOGRAPHY. AN AIRBORNE SMALL-FORMAT CAMERA SYSTEM WAS FLOWN SIMULTANEOUS TO MINIMAL SELECTED GROUND SAMPLING. THIS ALLOWED MEASUREMENT OF GROUND LEVELS OF TURBIDITY AND SUSPENDED SOLIDS OVER RELATIVELY LARGE WATERSHED AREAS. THE STUDY WAS LIMITED TO NON-POINT POLLUTION SOURCES MONITORING IN WATERSHEDS IN POTATO-PRODUCING AGRICULTURAL AREAS IN AROOSTOOK COUNTY, MAINE. INITIAL CALIBRATION OF MONITORED RIVERS WAS USED TO ASSESS FILM RESPONSE TO GIVEN POLLUTANT TYPES, WITH QUANTIFICATION BY DENSITOMETRY. RELATIONS WERE FORMULATED TO ESTIMATE SUSPENDED SOLIDS CONCENTRATIONS FROM FILM DENSITY VALUES. CALIBRATIONS WERE BOTH SITE- AND SOURCE-SPECIFIC. THE CALIBRATION MODEL COULD BE USED FOR SUSPENDED SOLID CONCENTRATION PREDICTION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006874

PUBLICATION DATE: MAR 81

TITLE: COMPARING THREE WATER QUALITY SAMPLING TECHNIQUES FOR MEASURING NON-POINT SOURCE POLLUTION IN FOREST STREAMS.

PERSONAL AUTHOR: BEASLEY, R. SCOTT

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *COSHOCTON WHEEL SAMPLERS; *MONITORING; *NONPOINT POLLUTION; *PUMPING SAMPLERS; RESEARCH; *SAMPLING; *STREAMS; SUSPENDED SOLIDS; *WATER QUALITY; WATER RESOURCES

DESCRIPTIVE NOTE: 17P. PB81-209199

ABSTRACT: THIS STUDY COMPARED TWO OF THE MOST COMMON TYPES OF STREAM SAMPLING SYSTEMS: COSHOCTON WHEEL SAMPLERS WITH PROPORTIONAL SPLITTERS AND PUMPING SAMPLERS. COMPARISONS WERE BASED UPON CONCENTRATIONS OF TOTAL SUSPENDED SOLIDS, DETERMINED BY VACUUM FILTRATION THROUGH 0.45 MICRON FILTERS AND THE EVAPORATION METHOD, AND EXPRESSED AS MG/LITER CONCENTRATIONS. NINE FORESTED EXPERIMENTAL WATERSHEDS IN THE QUACHITA MOUNTAINS IN CENTRAL ARKANSAS WERE EQUIPPED WITH 0.9 METER H-PLUMES, CONCRETE WING WALLS AND APPROACH SECTIONS, WATER STAGE RECORDERS, COSHOCTON WHEEL SAMPLERS, SEDIMENT TRAPS, WATER SPLITTERS, AND A NETWORK OF RAIN GAUGES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006075

PUBLICATION DATE: JUN 81

TITLE: EVALUATION OF REMOTE SENSING DATA FOR INPUT INTO HYDROLOGICAL SIMULATION PROGRAM-FORTRAN (HSPF).

PERSONAL AUTHOR: FRANZ, D. D.; LIEU, S. M.

DESCRIPTOR: *COMPUTER APPLICATIONS; COST EFFECTIVENESS; *DATA COLLECTION; EVALUATION; *HYDROLOGY; *LANDSAT; *REMOTE SENSING; *RESEARCH; *SIMULATIONS; *TECHNOLOGICAL ADVANCEMENTS

DESCRIPTIVE NOTE: 107P. PB81-209561

ABSTRACT: THIS REPORT DESCRIBES AN EVALUATION OF THE FEASIBILITY OF USING A REMOTELY SENSED DATA BASE AS INPUT INTO THE HYDROLOGIC SIMULATION PROGRAM-FORTRAN (HSPF). REMOTELY SENSED DATA FROM THE SATELLITE LANDSAT AND CONVENTIONALLY OBTAINED DATA WERE USED TO SET UP THE INPUT PARAMETERS OF HSPF. SIMULATIONS WERE RUN TO COMPARE THE TWO SETS OF DATA. THE REMOTELY SENSED DATA SET PERFORMED AS WELL AS THE CONVENTIONAL ONE WHEN COMPARED WITH OBSERVED DATA. IN ADDITION, IT WAS ESTIMATED TO OFFER SAVINGS OF 30 TO 50 PERCENT IN THE COST OF SET UP AND OPERATIONS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006800

PUBLICATION DATE: JUN 81

TITLE: FEEDLOT WASTE MANAGEMENT AND POLLUTION CONTROL. JANUARY, 1970-MAY, 1981. (CITATIONS FROM POLLUTION ABSTRACTS).

DESCRIPTOR: *AGRICULTURE; *AGRICULTURE WASTES; *BIBLIOGRAPHIES; EFFLUENTS; *FEEDLOTS; GROUNDWATER; MANAGEMENT; *POLLUTION; RECYCLING; *RESEARCH REPORTS; REUSE; *WASTE DISPOSAL; WASTE TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 97P. PB81-867327

ABSTRACT: THIS RETROSPECTIVE BIBLIOGRAPHY COVERS THE MANAGEMENT OF LIQUID AND SOLID WASTES FROM FEEDLOTS, INCLUDING THE COLLECTION, TREATMENT, DISPOSAL, AND/OR REUSE OR RECYCLING OF THESE WASTES. IT ALSO COVERS THE CONTROL OF POLLUTION OF GROUND WATERS AND SURFACE WATERS FROM FEEDLOT WASTES OR EFFLUENTS. SOME ATTENTION IS GIVEN TO SPECIFIC POLLUTANTS FROM THE WASTES. THE BIBLIOGRAPHY CONTAINS 116 CITATIONS FULLY INDEXED AND INCLUDING A TITLE LIST.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006081

PUBLICATION DATE: MAY 81

TITLE: WASTEWATER TREATMENT IN THE CHEMICAL INDUSTRY. JANUARY, 1970-MAY, 1981. (CITATIONS FROM POLLUTION ABSTRACTS).

DESCRIPTOR: *BIBLIOGRAPHIES; BIOLOGICAL TREATMENT; *CHEMICAL INDUSTRY; *CHEMICALS; *FERTILIZERS; *INDUSTRIAL WASTES; MERCURY; PESTICIDES; *POLLUTION; *RESEARCH; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 73P. PB81-067392

ABSTRACT: WASTEWATER TREATMENT IN THE CHEMICAL INDUSTRY IS DISCUSSED IN TERMS OF A WIDE VARIETY OF INDUSTRIAL POLLUTANTS. BIOLOGICAL TREATMENTS ARE EMPHASIZED WHERE APPLICABLE. THE REMOVAL OF MERCURY AND ITS COMPOUNDS IS INCLUDED. PROBLEMS ASSOCIATED WITH FERTILIZERS AND PESTICIDES ARE ALSO INCLUDED. CONTAINS 116 CITATIONS FULLY INDEXED AND INCLUDING A TITLE LIST.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006802

PUBLICATION DATE: JUN 81

TITLE: INTERNATIONAL AGREEMENTS ON WATER POLLUTION. JANUARY, 1970-MAY, 1981. (CITATIONS FROM POLLUTION ABSTRACTS).

DESCRIPTOR: *BIBLIOGRAPHIES; INDUSTRIAL WASTES; *INTERNATIONAL COOPERATION; *LAWS; MUNICIPAL WASTES; *POLLUTION; REGULATIONS; *RESEARCH; STANDARDS; *WATER RESOURCES; WASTE DISPOSAL; *WATER POLLUTION; *WATER QUALITY; *WORLD PROBLEMS

DESCRIPTIVE NOTE: 73P. PB81-867467

ABSTRACT: CITATIONS IN THIS RETROSPECTIVE BIBLIOGRAPHY COVER INTERNATIONAL AGREEMENTS CONCERNING WATER POLLUTION STANDARDS, PREVENTION, AND CONTROL, AND WATER QUALITY STANDARDS AND CONTROL. THE ROLE AND EFFECTS OF INTERNATIONAL

LAWS, COOPERATION, AGENCIES, AND COMMISSIONS ARE CONSIDERED. DISCHARGES AND DISPOSAL OF POLLUTANTS AND WASTES OF VARIOUS KINDS FROM MANY TYPES OF SOURCES (INDUSTRIAL, MUNICIPAL, SHIPPING, ETC.) ARE ADDRESSED. CONTAINS 89 CITATIONS FULLY INDEXED AND INCLUDING A TITLE LIST.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006083

TITLE: THE QUEST FOR PURE WATER, VOLUMES 1 & 2.

DESCRIPTOR: *DRINKING WATER; *HISTORY; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WATER); TECHNOLOGY; *WATER TREATMENT; *WATER QUALITY; *WATER SUPPLY

DESCRIPTIVE NOTE: V1-344, V2-296P. PRICE: \$19.75 FOR AWWA MEMBERS, \$39.50 FOR NON-MEMBERS.

ABSTRACT: THIS TWO-VOLUME WORK OFFERS A COMPREHENSIVE LOOK AT MANKIND'S EFFORTS TO OBTAIN PURE WATER DURING NEARLY 4,000 YEARS OF RECORDED HISTORY. IT EXAMINES THE DEVELOPING METHODS, MATERIALS, PRINCIPLES, AND PRACTICES TO THE PRESENT. VOLUME 1 COVERS THE CHRONOLOGY TO THE EARLY 1940'S. VOLUME 2 CONTINUES THE HISTORY TO THE 1980'S AND INCLUDES CHAPTERS CONTRIBUTED BY 12 EXPERTS IN THE FIELD.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION, PUBLICATIONS SALES, 6666 WEST QUINCY AVE., DENVER, CO 80235

IRIS ACCESSION NUMBER: EW906084

PUBLICATION DATE: SEP 81

TITLE: HOW TO INSPECT AND EVALUATE PRESTRESSED CONCRETE TANKS.

PERSONAL AUTHOR: SCHUPACK, MORRIS

DESCRIPTOR: *CHECKLISTS; CONCRETE TANKS; *EVALUATION; *GUIDELINES; *INSPECTION; MAINTENANCE; *PREVENTATIVE MAINTENANCE; STORAGE FACILITIES; *TANKS; *WATER STORAGE

DESCRIPTIVE NOTE: 38-89P.

ABSTRACT: THIS ARTICLE PROVIDES GUIDELINES FOR THE INSPECTION OF PRESTRESSED CONCRETE TANKS. AN INSPECTION CHECKLIST IS GIVEN FOR WIRE WRAPPED AND SHOTCRETED TANKS AND DOMES, BUTTRESS TYPE TANKS USING INDIVIDUAL TENDONS, AND BAR TENDONS ON TANK SURFACE.

AVAILABILITY: PUBLIC WORKS, V112 N9

IRIS ACCESSION NUMBER: EW006085

PUBLICATION DATE: SEP 81

TITLE: ACCURATE MEASUREMENT OF FLOWS IN SANITARY SEWER SYSTEMS.

PERSONAL AUTHOR: SUNDIN, HJALMAR S.

DESCRIPTOR: ANALYTICAL TECHNIQUES; COSTS; EQUIPMENT; *EVALUATION; *FLOW MEASUREMENT; INFILTRATION; *MEASUREMENT; MONOGRAPHS; *SEWERS; VELOCITY RECORDERS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 102-104P.

ABSTRACT: THIS ARTICLE DISCUSSES AND CRITICALLY ANALYZES SOME OF THE METHODS CURRENTLY BEING USED BY PUBLIC SEWER AUTHORITIES AND THEIR ENGINEERING CONSULTANTS TO MEASURE FLOWS IN SANITARY SEWER SYSTEMS. POSITIVE RESULTS ARE REPORTED FOR TECHNICIANS USING A MONOGRAPH AND COMPLETING ALL READINGS AND MEASUREMENTS BY HAND.

AVAILABILITY: PUBLIC WORKS, V112 N9

IRIS ACCESSION NUMBER: EW006086

PUBLICATION DATE: SEP 80

TITLE: SEMINAR ON WATER QUALITY MANAGEMENT TRADE-OFFS (POINT SOURCE VS DIFFUSE SOURCE POLLUTION.)
PERSONAL AUTHOR: CHRISTENSEN, RALPH G.; RISLEY, CLIFFORD, JR.

DESCRIPTOR: CASE STUDIES; *CONFERENCE PROCEEDINGS; *COST EFFECTIVENESS; ENVIRONMENTAL LEGISLATION; ENVIRONMENTAL MANAGEMENT; LAND USE; *MANAGEMENT; *NONPOINT POLLUTION; *POLLUTION CONTROL; PROBLEM SOLVING; REGULATIONS; STANDARDS; WATER RESOURCES; WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 400P. PB01-176646

ABSTRACT: THIS PUBLICATION CONTAINS THE PROCEEDINGS OF A SEMINAR ON WATER QUALITY MANAGEMENT TRADE-OFFS, HELD SEPTEMBER 19-17, 1980, IN CHICAGO, ILLINOIS. SPECIFICALLY ADDRESSED IS A DESCRIPTION OF A METHODOLOGY FOR INTEGRATING POINT AND DIFFUSE SOURCE CONTROL PRACTICES AND COSTS IN BOTH LARGE AND SMALL WATERSHEDS. AMONG THE TOPICS ADDRESSED ARE: SECTION 208 PROGRAM, WATER QUALITY, LAND USE, FEDERAL POLICIES, STANDARDS, REGULATIONS, HEALTH EFFECTS, GREAT LAKES POLLUTION, WASTEWATER TREATMENT, MANAGEMENT, URBAN AREAS, AND CHEMICAL AND BIOLOGICAL FACTORS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006889
PUBLICATION DATE: APR 80

TITLE: THE EVALUATION OF WATER CONSERVATION FOR MUNICIPAL AND INDUSTRIAL WATER SUPPLY. PROCEDURES MANUAL.

PERSONAL AUTHOR: BAUMANN, DUANE D.; AND OTHERS

DESCRIPTOR: ANALYTICAL TECHNIQUES; CONSERVATION;
EVALUATION; *INDUSTRY; *MANUALS; *MEASUREMENT;
*MUNICIPALITIES; *PLANNING; *WATER CONSERVATION; *WATER
SUPPLY; *WATER USE

DESCRIPTIVE NOTE: 77P. AD-A092 989/3

ABSTRACT: THIS REPORT DESCRIBES THE CONCEPTS, PROCEDURES, AND MEASUREMENT TECHNIQUES WHICH CAN BE USED IN DEVELOPING AND EVALUATING WATER CONSERVATION PROPOSALS APPLICABLE TO MUNICIPAL AND INDUSTRIAL USES OF WATER. CHAPTERS INCLUDE: INTRODUCTION; GENERAL APPROACH TO WATER CONSERVATION PLANNING; WATER CONSERVATION MEASURES; MEASURE-SPECIFIC ANALYSIS; EVALUATION OF WATER CONSERVATION MEASURES; AND, INTEGRATION OF WATER CONSERVATION INTO WATER SUPPLY PLANS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006890

PUBLICATION DATE: DEC 80
TITLE: INDUSTRIAL REUSE AND RECYCLE OF WASTEWATERS - LITERATURE REVIEW.

PERSONAL AUTHOR: MATTHEWS, JOHN E.

DESCRIPTOR: ECONOMIC FACTORS; *INDUSTRY; *INDUSTRIAL WASTES; *LITERATURE REVIEWS; MUNICIPALITIES; RECLAMATION; *RECYCLING; *RESEARCH REVIEWS; *REUSE; WASTE DISPOSAL; WASTEWATER; *WATER USE

DESCRIPTIVE NOTE: 210P. PB81-155145

ABSTRACT: A REVIEW OF THE LITERATURE ON REUSE/RECYCLE OF WASTEWATERS BY INDUSTRY IS PRESENTED IN THIS REPORT. THE PRINCIPAL TIME PERIOD REVIEWED WAS 1967-1978. AN ATTEMPT WAS MADE TO INCLUDE THE MOST PROMINENT REFERENCES FOR NINE DIFFERENT INDUSTRIAL CATEGORIES. IN ADDITION, THE REPORT INCLUDES SECTIONS ON INDUSTRIAL USE OF MUNICIPAL WASTEWATER, RECLAMATION PROCESSES, AND ECONOMICS OF WATER REUSE/RECYCLE.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006891

PUBLICATION DATE: SEP 79

TITLE: AQUACULTURE SYSTEMS FOR WASTEWATER TREATMENT:

SEMINAR PROCEEDINGS AND ENGINEERING ASSESSMENT.
DESCRIPTOR: *AQUACULTURE; *AQUATIC SYSTEMS; *CASE STUDIES;
*CONFERENCE PROCEEDINGS; DESIGN; *ENGINEERING; *FACILITIES;
MANAGEMENT; OPERATIONS (WASTEWATER); *WASTEWATER TREATMENT;
*WETLANDS

DESCRIPTIVE NOTE: 490P. PB81-156705

ABSTRACT: THIS PUBLICATION CONTAINS AN ENGINEERING ASSESSMENT AND THE PROCEEDINGS OF A SEMINAR HELD AT THE UNIVERSITY OF CALIFORNIA - DAVIS ON SEPTEMBER 11-12, 1979, ON THE USE OF AQUATIC SYSTEMS FOR THE TREATMENT OF MUNICIPAL WASTEWATER. CASE STUDIES DRAWN FROM THROUGHOUT THE UNITED STATES ARE USED TO ILLUSTRATE THE ENGINEERING, DESIGN, OPERATION, AND MANAGEMENT OF VARIOUS WASTEWATER AQUACULTURE SYSTEMS, INCLUDING PROJECTS INVOLVING WETLANDS PROCESSES, AQUATIC PLANT PROCESSES, AND COMBINED AQUATIC PROCESSES. THE POTENTIAL RECOVERY OF ENERGY AND RESOURCES IS ALSO CONSIDERED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006892

PUBLICATION DATE: MAR 81

TITLE: DEVELOPMENT OF ANALYTICAL TEST PROCEDURES FOR ORGANIC POLLUTANTS IN WASTEWATER - APPLICATION TO PESTICIDES.
PERSONAL AUTHOR: MILLER, HOPE; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICAL ANALYSIS;
*LABORATORY PROCEDURES; *MONITORING; *ORGANIC COMPOUNDS;
*PESTICIDES; *SAMPLING; *WASTEWATER; WATER QUALITY

DESCRIPTIVE NOTE: 90P. PB81-172629

ABSTRACT: THE ENVIRONMENTAL PROTECTION AGENCY'S ENVIRONMENTAL MONITORING AND SUPPORT LABORATORY AT CINCINNATI HAS BEEN ENGAGED IN THE DEVELOPMENT OF TEST PROCEDURES FOR A MULTITUDE OF ORGANICS IN WATER. MIDWEST RESEARCH INSTITUTE WAS CONTRACTED TO PERFORM IN A DEVELOPMENT PROGRAM DIRECTED TOWARD A GROUP OF 54 PESTICIDES. THE OBJECTIVE WAS TO DEVELOP PROCEDURES THAT WERE AS SIMILAR TO EACH OTHER AS POSSIBLE AND WERE SENSITIVE TO 1 MG/LITER. BY USING A STANDARD METHOD, AT LEAST AS A STARTING POINT, AND MAKING ADJUSTMENT AS NECESSARY, THE NUMBER OF UNIQUE PROCEDURES WAS KEPT TO A MINIMUM. THE EXPERIMENTAL APPROACH WAS TO TEST EACH PESTICIDE AGAINST THE STANDARD METHOD, E.G., METHYLENE CHLORIDE EXTRACTION--KUDERNA-DANISH EVAPORATION--FLORISIL CLEANUP--GAS CHROMATOGRAPHIC DETERMINATION. PROBLEM AREAS SUCH AS POOR RECOVERY, INADEQUATE CLEANUP, ETC., WERE IDENTIFIED AND MODIFICATIONS TO CIRCUMVENT THESE PROBLEMS WERE DEVISED. ONE MAJOR DEVIATION WAS THE USE OF HPLC FOR SEVERAL CLASSES OF PESTICIDES. THE GENERAL CLASSES OR INDIVIDUAL PESTICIDES STUDIED (AND THE NUMBER OF COMPOUNDS IN THE CLASSES) WERE: ORGANOCHLORINE (6); ORGANONITROGEN (7); ORGANOPHOSPHORUS (19); TRIAZINES (9); CARBAMATES AND UREAS (7); CARBENDAZIN

AND BENONYL; CYANAZINE; CARDOFURAN; 4,4'-METHYLENE-BIS(2-CHLORANILINE); AND DINOSEB.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006893

PUBLICATION DATE: MAR 81

TITLE: URBAN STORM SEWER AND WATER RUNOFF. NOVEMBER, 1979-JANUARY, 1981. (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *BIBLIOGRAPHIES; *HYDROLOGY; MODELING; PLANNING; POLLUTION CONTROL; RESEARCH REPORTS; *RUNOFF; *SEWERS; *SURFACE RUNOFF; *URBAN AREAS; WASTEWATER COLLECTION; *WASTEWATER

DESCRIPTIVE NOTE: 67P. PB81-805231

ABSTRACT: THIS PUBLICATION CONTAINS ABSTRACTS FROM RESEARCH REPORTS FOR THREE MAJOR AREAS: URBAN STORM RUNOFF PROBLEMS AND ABATEMENT; COMBINED AND STORM SEWERS; AND URBAN HYDROLOGY AND ITS MODELING. THESE REPORTS INCLUDE NOT ONLY ENGINEERING SPECIFICS BUT ALSO PLANNING AND IMPACT STUDIES. THIS UPDATED BIBLIOGRAPHY CONTAINS 59 CITATIONS, ALL OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006894

PUBLICATION DATE: FEB 81

TITLE: SNOW AND ICE CONTROL: ROADWAYS. JANUARY, 1970-FEBRUARY, 1981. (CITATIONS FROM THE ENGINEERING INDEX DATA BASE.)

DESCRIPTOR: *BIBLIOGRAPHIES; *CHEMICALS; *DE-ICING; ENGINEERING; HIGHWAYS; MAINTENANCE; *POLLUTION; ROADS; *SALT; *SNOW REMOVAL; VEGETATION; *WATER RESOURCES; WELLS

DESCRIPTIVE NOTE: 109P. PB81-860868

ABSTRACT: THIS BIBLIOGRAPHY COVERS WORLDWIDE INFORMATION ON APPLICATION OF ALL TYPES OF DE-ICING CHEMICALS AND METHODS FOR SNOW REMOVAL. TOPICS ALSO INCLUDE WATER, WELL, GROUND, SURFACE, AND VEGETATION POLLUTION ASSOCIATED WITH ROAD SALTING. 120 CITATIONS ARE CONTAINED IN THIS BIBLIOGRAPHY

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006896

PUBLICATION DATE: SEP 81

TITLE: GROUNDWATER MONITORING.

PERSONAL AUTHOR: JOSEPHSON, JULIAN

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CONTAMINATION; EQUIPMENT; GEOHYDROLOGY; *GROUNDWATER; *HYDROLOGY; *MONITORING; REGULATIONS; *SAMPLING TECHNIQUES; STANDARDS; WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 993-926P.

ABSTRACT: THIS ARTICLE EXAMINES VARIOUS FACTORS AFFECTING THE FUTURE OF GROUNDWATER MONITORING. SEVERAL LEADERS IN THE FIELD PROVIDE VIEWPOINTS ON PROBLEMS AND POSSIBLE SOLUTIONS. THE ARTICLE CONCLUDES THAT GROUNDWATER MONITORING PROMISES TO BECOME A RAPIDLY GROWING INDUSTRY BUT IMPROVEMENTS IN GEOHYDROLOGICAL AND GEOCHEMICAL UNDERSTANDING AND IN SAMPLING TECHNIQUES ARE NEEDED.

AVAILABILITY: ENVIRONMENTAL SCIENCE & TECHNOLOGY, V15 N9

IRIS ACCESSION NUMBER: EW006902

PUBLICATION DATE: SEP 81

TITLE: SEWER SAFETY NEEDN'T COST A FORTUNE.

PERSONAL AUTHOR: O'BRIEN, BARBARA

DESCRIPTOR: *ACCIDENT PREVENTION; *HAZARDS; MANHOLES; *SAFETY; *SAFETY EQUIPMENT; SEWER SYSTEMS; *SEWER WORKERS

DESCRIPTIVE NOTE: 103-105P.

ABSTRACT: AMERICAN DIGITAL SYSTEMS, INC. CONDUCTED AN EXTENSIVE STUDY ON SEWER WORKER SAFETY. THEIR CONCLUSIONS WERE THAT FOUR FACTORS POSED THE GREATEST THREATS TO WORKERS' LIVES: DROWNING, FALLING, GAS POISONING, AND TRAFFIC. THIS ARTICLE EXPLAINS WAYS TO AVOID THESE HAZARDS AND DESCRIBES RECOMMENDED SAFETY GEAR.

AVAILABILITY: AMERICAN CITY & COUNTY, V96 N9

IRIS ACCESSION NUMBER: EW006903

PUBLICATION DATE: SEP 81

TITLE: DETROIT--FRESH CLEAN WATER.

PERSONAL AUTHOR: BIERIG, H. W.; AND OTHERS

DESCRIPTOR: *CASE STUDIES; CLEAN WATER ACT; *DETROIT; *FACILITIES; INDUSTRIAL WASTES; *MUNICIPALITIES; *POLLUTION CONTROL; SEWAGE; URBAN AREAS; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 1359-1365P.

ABSTRACT: THIS ARTICLE PROVIDES A HISTORICAL REVIEW OF WATER POLLUTION CONTROL EFFORTS IN DETROIT, MICHIGAN. SPECIFIC ATTENTION IS FOCUSED ON WASTEWATER TREATMENT FACILITIES AND PROCESSES FOR THE CITY. ALSO EXAMINED IS TREATMENT OF VARIOUS INDUSTRIAL WASTES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N9

IRIS ACCESSION NUMBER: EW006904

PUBLICATION DATE: SEP 81

TITLE: THE WAYNE COUNTY, MICHIGAN, WASTEWATER COLLECTION AND TREATMENT SYSTEM.

PERSONAL AUTHOR: EGELAND, DUANE, R.; BIEHL, TED C.

DESCRIPTOR: *CASE STUDIES; *COLLECTION SYSTEMS; DESIGN; *FACILITIES; *MICHIGAN; *MUNICIPALITIES; *OPERATIONS (WASTEWATER); SEWERS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1366-1369P.

ABSTRACT: THIS ARTICLE DESCRIBES THE WASTEWATER TREATMENT EFFORTS OF WAYNE COUNTY, MICHIGAN. THIS WASTEWATER COLLECTION AND TREATMENT SYSTEM, OPERATED BY THE WAYNE COUNTY BOARD OF PUBLIC WORKS, SERVES A POPULATION OF OVER ONE MILLION IN 39 MUNICIPALITIES LOCATED IN 5 COUNTIES. TREATMENT PLANT DESIGN, COLLECTION AND TREATMENT SYSTEM ILLUSTRATIONS, AND ECONOMIC AND MANPOWER FIGURES ARE PROVIDED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N9

IRIS ACCESSION NUMBER: EW006905

PUBLICATION DATE: SEP 81

TITLE: SUCCESSFUL SLUDGE MANAGEMENT AT AN ACTIVATED SLUDGE TREATMENT PLANT.

PERSONAL AUTHOR: GRANT, FRANK A.; AND OTHERS

DESCRIPTOR: *ACTIVATED SLUDGE; AERATORS; *CALIFORNIA; *CASE STUDIES; COST EFFECTIVENESS; DEWATERING; *FACILITIES; LAND TREATMENT; *MANAGEMENT; *OPERATIONS (WASTEWATER); *SLUDGE; WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1378-1384P.

ABSTRACT: SUCCESSFUL MANAGEMENT OF SLUDGE HANDLING, TREATMENT, AND DISPOSAL AT THE CAMARILLO WASTEWATER RECLAMATION PLANT (CALIF.) HAS MINIMIZED MANY OPERATIONAL PROBLEMS AND COSTS. THE PLANT IS ABLE TO TREAT, DEWATER, AND DISPOSE OF ALL ITS SLUDGE. SOME DESIGN FEATURES SPECIFICALLY RELATED TO DEWATERING ARE: SEPARATE TREATMENT OF PRIMARY AND

WASTE ACTIVATED SLUDGES--A PROCEDURE THAT OBIVIATES PROBLEMS WITH DIGESTER MIXING AT MANY PLANTS WHERE LIGHTER, THICKENED WASTE ACTIVATED SLUDGE FLOATS IN AN ANAEROBIC DICESTER AND RESISTS MIXING UNLESS THE DICESTER IS EQUIPPED WITH MORE THAN THE CONVENTIONAL MIXING EQUIPMENT; USE OF A REACTOR THICKENER INSTEAD OF AN AIR FLOTATION THICKENER FOR WASTE ACTIVATED SLUDGE THICKENING--A METHOD THAT ACHIEVES EQUIVALENT RESULTS WITH MUCH LESS CAPITAL AND ENERGY COSTS; AND SLUDGE DRYING BEDS DESIGNED FOR RAPID SLUDGE DRYING AND CLEANING. A UNIQUE DECANTING DEVICE HAS BEEN INCORPORATED INTO THE DESIGN TO ALLOW DRAINING OF EXCESS WATER. IN ADDITION, THE BEDS ARE DESIGNED WITH SPECIAL RAMPS AND CONCRETE RUNNERS TO ACCOMMODATE MECHANICAL CLEANING AND MINIMIZE ADDITIONAL MANUAL LABOR.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N9

IRIS ACCESSION NUMBER: EW006906

PUBLICATION DATE: SEP 81

TITLE: VACUUM FILTRATION OF SLUDGE IN A LARGE TREATMENT SYSTEM.

PERSONAL AUTHOR: MOEHLMAN, DAVID; AND OTHERS

DESCRIPTOR: *CASE STUDIES; *DEWATERING; *EQUIPMENT; *FACILITIES; FILTERS; MANAGEMENT; *OPERATIONS (WASTEWATER); *SLUDGE; *TEXAS; *VACUUM FILTERS; WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1385-1390P.

ABSTRACT: THE CITY OF HOUSTON COLLECTS EXCESS ACTIVATED SLUDGE FROM 13 SEPARATE WASTEWATER PLANTS FOR VACUUM FILTERING AT 4 SLUDGE DISPOSAL PLANTS. TRANSPORTATION OF THESE SLUDGES IS LARGELY ACCOMPLISHED BY FORCE MAINS DISCHARGING ACROSS DRAINAGE AREA BOUNDARIES INTO GRAVITY SEWERS. ALL THE SLUDGE DISPOSAL PLANTS USE VACUUM FILTRATION PRIOR TO DRYING THE SOLIDS THAT ARE SUITABLE FOR SALE AS COMMERCIAL FERTILIZER. FILTRATION EXPERIENCES, WHICH BEGAN WITH 2 FILTER PRESSES INSTALLED IN 1918, HAVE EVOLVED INTO A SYSTEM OF 56 ROTARY DRUM FILTERS SCATTERED AMONG THE 4 SLUDGE DISPOSAL PLANTS. DURING THE 69 YEARS OF EXPERIENCE, SLUDGE QUALITY HAS VARIED WIDELY: MANY COAGULANTS HAVE BEEN TRIED, RANGING FROM SULFURIC ACID TO POLYMERS; NUMEROUS SLUDGE FEED AND FLOCCULATOR ARRANGEMENTS HAVE BEEN USED; CLOTH MEDIA EXPERIENCE RANGES FROM COTTON FLANNEL TO SYNTHETICS; AND FILTER YIELDS HAVE VARIED FROM 2.9 TO 14.6 KG/M² H (0.6 TO 3.0 PSF/H).

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N9

IRIS ACCESSION NUMBER: EW006907

PUBLICATION DATE: SEP 81

TITLE: NITROGEN REMOVAL BY FREE AMMONIA STRIPPING FROM HIGH

PH PONDS.

PERSONAL AUTHOR: IDELOVITCH, EMANUEL; MICHAIL, MEDY

DESCRIPTOR: *AMMONIA; *CASE STUDIES; *EVALUATION;
FACILITIES; *ISRAEL; MANAGEMENT; *NITROGEN; OPERATIONS
(WASTEWATER); *PH; PONDS; *STRIPPING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1391-1401P.

ABSTRACT: REMOVAL OF NITROGEN BY FREE AMMONIA STRIPPING FROM HIGH PH PONDS WAS INVESTIGATED IN A LARGE PILOT PLANT IN THE DAN REGION SEWAGE RECLAMATION PROJECT NEAR TEL AVIV, ISRAEL. THE EFFICIENCY OF THE PROCESS, THE RESIDUAL AMMONIA CONCENTRATIONS ACHIEVABLE, THE REACTION RATE CONSTANTS, AND AMMONIA LOSS RATES WERE DETERMINED FOR THE TWO MAIN CLIMATIC SEASONS OF THE YEAR--SUMMER (25 TO 30 C) AND WINTER (10 TO 15 C)--AND FOR DETENTION TIMES VARYING BETWEEN 7 AND 14 DAYS. RESULTS FROM THE FULL-SCALE PLANT ARE IN COMPLETE AGREEMENT WITH THE PILOT PLANT RESULTS. MEDIAN AMMONIA CONCENTRATIONS OF LESS THAN 1 MG/L IN SUMMER AND 5 TO 6 MG/L IN WINTER WERE OBTAINED IN THE FULL-SCALE PONDS' EFFLUENT, CORRESPONDING TO MEDIAN INFLUENT CONCENTRATIONS OF 25 AND 30 MG/L, RESPECTIVELY. WHERE LAND AVAILABILITY IS NOT A PROBLEM, LONG-TIME DETENTION OF HIGH-LINE EFFLUENT IN PONDS IS AN ADEQUATE UNIT PROCESS REQUIRING NO ENERGY, AND PROVIDING FOR AMMONIA STRIPPING AS WELL AS FOR PARTIAL EFFLUENT RECARBONATION AND OVERALL IMPROVEMENT OF EFFLUENT QUALITY.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N9

IRIS ACCESSION NUMBER: EW006908

PUBLICATION DATE: SEP 81

TITLE: RECLAMATION OF WASTEWATER WITH A SOIL-TURF FILTER:
I: REMOVAL OF NITROGEN.

PERSONAL AUTHOR: ANDERSON, E. L.; AND OTHERS

DESCRIPTOR: *FILTRATION; GROUNDWATER; *LAND APPLICATION;
MUNICIPALITIES; *NITROGEN; NUTRIENTS; *RECLAMATION; *SOILS;
WASTE DISPOSAL; *WASTEWATER TREATMENT; WATER QUALITY

DESCRIPTIVE NOTE: 1402-1407P.

ABSTRACT: THIS STUDY INVESTIGATED THE MAXIMUM RATE OF WASTEWATER THAT COULD BE APPLIED TO TWO DIFFERENT SOILS TO ACHIEVE SUITABLE WATER QUALITY IN THE FORM OF LEACHATE, WITHOUT HARMING TURFGRASS AND WITHOUT EXCESS NITRATE CONCENTRATIONS. A SAND-TURF FILTER REMOVED LESS NITROGEN THAN A MIX-TURF FILTER, BUT ITS LOWER WATER-HOLDING CAPACITY RESULTED IN HIGHER RECHARGE PERCENTAGES. THE MAXIMUM RATE OF WASTEWATER APPLICATION THAT MAINTAINED LEACHATE NITRATE CONCENTRATIONS BELOW 10 MG/L WAS ALSO INFLUENCED BY SEASON. IN THE SUMMER, THE SAND-TURF FILTER COULD ACCEPT UP TO 12.7 CM/WK YIELDING 9 CM/WK RECHARGE, COMPARED TO 18.7 CM/WK YIELDING 12.5 CM/WK RECHARGE FOR THE MIX-TURF FILTER. CORRESPONDING WINTER VALUES FOR THE SAND-TURF FILTER WERE 13.6 CM/WK APPLIED WITH 10.8 CM/WK RECHARGE, AND 21.9 CM/WK

APPLIED TO THE MIX-TURF YIELDING 16 CM/WK RECHARGE. THE SAND-TURF REMOVED 52% OF WASTEWATER NITROGEN (AVERAGING ALL APPLICATION RATES OVER THE 42-WEEK STUDY). THE SAND REMOVED 33% OF THE NITROGEN, WITH 19% REMOVED BY THE TURF. FOR THE MIX-TURF FILTER, 64% OF WASTEWATER NITROGEN WAS REMOVED--37% BY SOIL PROCESSES AND 27% BY TURF GROWTH.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N9

IRIS ACCESSION NUMBER: EW006909

PUBLICATION DATE: SEP 81

TITLE: RECLAMATION OF WASTEWATER WITH SOIL-TURF FILTER:
II: REMOVAL OF PHOSPHORUS, BORON, SODIUM AND CHLORINE.

PERSONAL AUTHOR: ANDERSON, E. L.; AND OTHERS

DESCRIPTOR: *BORON; *CHLORINE; *FILTRATION; GROUNDWATER;
*LAND APPLICATION; *PHOSPHORUS; *SODIUM; *SOILS; *WASTEWATER
TREATMENT; WATER QUALITY

DESCRIPTIVE NOTE: 1408-1412P.

ABSTRACT: SECONDARILY TREATED WASTEWATER WAS APPLIED SEPARATELY TO SANDY AND SILTACEOUS SOIL-TURF FILTERS TO STUDY RELATIVE REMOVALS OF PHOSPHORUS, SODIUM, BORON, AND CHLORINE AND THE ASSOCIATED IMPLICATIONS FOR GROUNDWATER RECHARGE. REMOVAL OF PHOSPHORUS WAS GREATER IN THE SILTACEOUS FILTER, BUT IN BOTH FILTERS LEACHATE PHOSPHORUS CONCENTRATIONS INCREASED WITH RATE OF WASTEWATER APPLICATION AND WITH TIME; AMENDMENT OF SOILS WITH LIME MAY BE NECESSARY TO KEEP LEACHATE PHOSPHORUS CONCENTRATIONS LOW. THAT NEITHER FILTER RETAINED BORON INDICATES POTENTIAL PROBLEMS MAY ARISE IF WASTEWATER BORATE CONCENTRATIONS INCREASE. SODIUM ADSORPTION RATIOS WERE 3 TO 4, REGARDLESS OF APPLICATION RATE OR SOIL TYPE, AND SEEMED TO POSE NO HAZARD. LEACHATE CHLORINE WAS UNDETECTABLE; HOWEVER, HIGH-PH-INDUCED IRON CHLOROSIS COULD BE HARMFUL TO TURF.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N9

IRIS ACCESSION NUMBER: EW006910

PUBLICATION DATE: SEP 81

TITLE: PARASITE EGG AND CYST REDUCTION IN OXIDATION DITCHES AND AERATED LAGOONS.

PERSONAL AUTHOR: PANICKER, P. V. R. C.; KRISHNAMOORTHY, K. P.

DESCRIPTOR: *CASE STUDIES; *DEVELOPING COUNTRIES; *INDIA;
*LAGOONS; OXIDATION; *PARASITES; *PUBLIC HEALTH; *WASTEWATER
TREATMENT; *WATER QUALITY; WATER RESOURCES

DESCRIPTIVE NOTE: 1413-1419P.

ABSTRACT: STUDIES UNDERTAKEN IN NACPUR, INDIA, TO ASCERTAIN THE PARASITIC EGG REMOVAL EFFICIENCY OF PILOT OXIDATION DITCHES AND AERATED LAGOON SYSTEMS RECORDED THE PRESENCE OF ENTAMOEBAS HISTOLYTICA, GIARDIA LAMBLIA, ASCARIS LUMBRICOIDES, HOOKWORM, TRICHURIS TRICHIURA, AND HYMENOLEPSIS NANA. TAENIA EGGS WERE INFREQUENT. CYST AND EGG COUNTS IN RAW WASTEWATER SAMPLES VARIED FROM 122 TO 860 PER LITRE, WITH A MODE OF 500 PER LITRE. ENTAMOEBAS HISTOLYTICA AND GIARDIA LAMBLIA CYSTS PREDOMINATED, WITH HELMINTHIC EGGS COMPARATIVELY FEWER. EFFLUENT SAMPLES FROM THE OXIDATION DITCH SHOWED 70 TO 100% CYST-EGG REMOVAL, WITH AN AVERAGE OVER 90%. AERATED LAGOON EFFICIENCY WAS 75 TO 95%. DESPITE GOOD REMOVALS DURING TREATMENT, EFFLUENTS FROM BOTH SYSTEMS STILL CONTAIN SOME PARASITIC EGGS OR CYSTS, AND A COUNT OF THESE ORGANISMS SHOULD BE CONSIDERED IN JUDGING EFFLUENT QUALITY.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N9

IRIS ACCESSION NUMBER: EW006915

PUBLICATION DATE: OCT 81

TITLE: DICTIONARY OF WASTE AND WATER TREATMENT.

PERSONAL AUTHOR: SCOTT, JOHN S.; SMITH, PAUL G.

DESCRIPTOR: *DICTIONARIES; *POLLUTION CONTROL; *REFERENCE MATERIALS; SEWAGE; TOXIC SUBSTANCES; WASTE DISPOSAL; *WASTEWATER TREATMENT; *WATER TREATMENT
DESCRIPTIVE NOTE: 366P. PRICE: \$49.95

ABSTRACT: THIS WASTE AND WATER TREATMENT DICTIONARY CONTAINS DEFINITIONS OF OVER 6000 TERMS USED IN WATER TREATMENT AND SUPPLY, SEWERAGE, SEWAGE TREATMENT AND DISPOSAL, SOLID WASTE DISPOSAL AND RECLAMATION, POLLUTION PREVENTION, AND TOXIC AND HAZARDOUS WASTE DISPOSAL. BOTH USA AND UK TERMS ARE FULLY DEFINED, AND IN MANY CASES INCLUDE LINE DIAGRAMS OR PROCESS DESIGN DATA.

AVAILABILITY: ANN ARBOR SCIENCE PUBLISHERS INC., THE BUTTERWORTH GROUP, 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW006916

PUBLICATION DATE: AUG 81

TITLE: TRIHALOMETHANE FORMATION IN NORTH CAROLINA DRINKING WATERS.

PERSONAL AUTHOR: SINGER, PHILIP C; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHLORINE; *CASE STUDIES; *CHEMICAL ANALYSIS; *DRINKING WATER; *NORTH CAROLINA; ORGANIC CARBON; *RESEARCH REPORTS; STANDARDS; *TRICHALOMETHANES; *WATER QUALITY; WATER RESOURCES; *WATER TREATMENT

DESCRIPTIVE NOTE: 392-401P.

ABSTRACT: THE RESULTS OF A TWO-YEAR RESEARCH PROJECT TO ASSESS TRIHALOMETHANE (THM) FORMATION POTENTIAL IN THE DRINKING WATER OF NINE NORTH CAROLINA CITIES ARE DISCUSSED IN THIS REPORT. RAW WATER QUALITY AND TREATED WATER QUALITY WERE ANALYZED BY FIELD SURVEYS OF 19 TREATMENT PLANTS DISTRIBUTED GEOGRAPHICALLY ACROSS THE STATE FROM THE HIGHLANDS IN THE WEST TO THE ATLANTIC COAST. TREATMENT PRACTICES WERE ASSESSED AND ORGANIC CARBON CONTENT WAS MEASURED SEASONALLY. THE MOST EFFECTIVE MEANS OF REDUCING THM LEVELS TO MEET THE STANDARDS OF THE NATIONAL PRIMARY DRINKING WATER REGULATIONS WAS SHIFTING CHLORINE APPLICATION TO A POSTTREATMENT OR POSTFILTRATION LOCATION.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N8

IRIS ACCESSION NUMBER: EW006917

PUBLICATION DATE: AUG 81

TITLE: SPECIFIC ORGANIC REMOVALS BY GRANULAR ACTIVATED CARBON PILOT CONTACTORS.

PERSONAL AUTHOR: YONE, THOMAS L.; AND OTHERS

DESCRIPTOR: ANALYTICAL TECHNIQUES; CARBON; *CASE STUDIES; CHEMICAL ANALYSIS; CHLORINE; *DRINKING WATER; *GRANULAR ACTIVATED CARBON; *ORGANIC COMPOUNDS; *WATER QUALITY; *WATER TREATMENT
DESCRIPTIVE NOTE: 402-410P.

ABSTRACT: PILOT-PLANT STUDIES OF THE ABILITY OF GRANULAR ACTIVATED CARBON (GAC) TO REMOVE ORGANICS, DONE IN PHILADELPHIA WHERE CONCENTRATIONS OF TRACE ORGANICS FLUCTUATE GREATLY, SHOWED THAT EFFLUENTS FROM THE GAC CONTACTOR OFTEN EXCEEDED INFLUENT ORGANIC CONCENTRATIONS. THIS PHENOMENON WAS USUALLY ASSOCIATED WITH LOW ORGANIC INFLUENT LEVELS THAT HAD BEEN PRECEDED BY HIGHER INFLUENT LEVELS. THE ARTICLE SUGGESTS THAT COMPOSITE SAMPLES ARE MORE APT TO GIVE AN ACCURATE INDICATION OF GAC PERFORMANCE THAN SINGLE-SAMPLE MEASUREMENTS OF MAXIMUM CONTAMINANT LEVELS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N8

IRIS ACCESSION NUMBER: EW006918

PUBLICATION DATE: AUG 81

TITLE: CHEMICAL PRETREATMENT FOR ACTIVATED-CARBON ADSORPTION.

PERSONAL AUTHOR: RANKTKE, STEPHEN J.; JEPSEN, CHRISTOPHER P.

DESCRIPTOR: *ACTIVATED CARBON; ADSORPTION; CHEMICAL ANALYSIS; *CHEMICAL TREATMENT; CHLORINATION; COAGULATION;

CONTAMINANTS; *DRINKING WATER; *OPERATIONS (WATER); ORGANIC COMPOUNDS; *PRETREATMENT; RESEARCH REPORTS; WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 411-419P.

ABSTRACT: THIS STUDY EXAMINED THE INTERACTION AMONG WATER TREATMENT PROCESSES THAT CONTROL HALOGENATED ORGANIC COMPOUNDS AND THEIR PRECURSORS. LABORATORY RESEARCH AT THE UNIVERSITY OF ILLINOIS INVESTIGATED THE FACTORS IN CHEMICAL COAGULANTS AND IN THE LIME-SODA SOFTENING PROCESSES THAT CONTRIBUTE TO THE REMOVAL OF ORGANIC CONTAMINANTS. A CORRELATION BETWEEN THE COAGULANT DOSAGE, THE CONCENTRATION AND TYPE OF ORGANIC MATTER, AND THE INORGANIC COMPOSITION OF THE WATERS WAS DEMONSTRATED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N8

IRIS ACCESSION NUMBER: EW006919

PUBLICATION DATE: AUG 81

TITLE: SYNTHETIC ADSORBENTS AND ACTIVATED CARBONS FOR WATER TREATMENT: OVERVIEW AND EXPERIMENTAL COMPARISONS.

PERSONAL AUTHOR: WEBER, WALTER J., JR.; VAN VLIET, BENJAMIN M.

DESCRIPTOR: *ACTIVATED CARBON; *ADSORPTION; *DRINKING WATER; *EVALUATION; *OPERATIONS (WATER); ORGANIC COMPOUNDS; *RESEARCH REPORTS; *SYNTHETIC ADSORBENTS; WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 420-425P.

ABSTRACT: THE FIRST OF A TWO-PART SERIES EVALUATING ALTERNATIVE ADSORBENTS FOR REMOVAL OF TRACE ORGANICS FROM WATER SUPPLIES, THIS PAPER PRESENTS AN OVERVIEW OF PREVIOUS WORK AND EXPERIMENTAL COMPARISON OF REPRESENTATIVE GRANULAR ACTIVATED CARBONS AND EIGHT OF THE MORE PROMISING SYNTHETIC ADSORBENTS FOR ADSORPTION OF SELECTED CLASSES OF ORGANIC COMPOUNDS. PARTICULAR EMPHASIS IS PLACED ON COMPARATIVE EQUILIBRIUM PERFORMANCE. THE SECOND PART OF THE SERIES PROVIDES A STATISTICAL ANALYSIS OF THE COMPARATIVE DATA AND AN INTERPRETATION OF FACTORS CONTROLLING THE PERFORMANCE CHARACTERISTICS OF ADSORBENTS FOR WATER TREATMENT APPLICATIONS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N8

IRIS ACCESSION NUMBER: EW006920

PUBLICATION DATE: AUG 81

TITLE: SYNTHETIC ADSORBENTS AND ACTIVATED CARBONS FOR WATER TREATMENT: STATISTICAL ANALYSES AND INTERPRETATIONS.

PERSONAL AUTHOR: WEBER, WALTER J., JR.; VAN VLIET, BENJAMIN

N.

DESCRIPTOR: *ACTIVATED CARBON; *ADSORPTION; *DATA ANALYSIS; DRINKING WATER; *EVALUATION; *OPERATIONS (WATER); ORGANIC COMPOUNDS; *RESEARCH REPORTS; *STATISTICS; SYNTHETIC ADSORBENTS; WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 426-431P.

ABSTRACT: THE SECOND OF A TWO-PART SERIES EVALUATING ALTERNATIVE ADSORBENTS FOR REMOVAL OF TRACE ORGANICS FROM WATER SUPPLIES, THIS PAPER PRESENTS A STATISTICAL ANALYSIS OF THE COMPARATIVE DATA AND AN INTERPRETATION OF FACTORS GOVERNING THE PERFORMANCE CHARACTERISTICS OF ADSORBENTS FOR WATER TREATMENT APPLICATIONS. THE FIRST PAPER PRESENTS AN OVERVIEW AND EXPERIMENTAL COMPARISONS AMONG EIGHT OF THE MORE PROMISING SYNTHETIC ADSORBENTS AND TWO REFERENCE ACTIVATED CARBONS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N8

IRIS ACCESSION NUMBER: EW006921

PUBLICATION DATE: AUG 81

TITLE: CONTROLLING TRIHALOMETHANES WITH POWDERED ACTIVATED CARBONS.

PERSONAL AUTHOR: ANDERSON, MARK C.

DESCRIPTOR: *ACTIVATED CARBON; *ADSORPTION; CASE STUDIES; CONTAMINANTS; *DRINKING WATER; *ORGANIC COMPOUNDS; POTABLE WATER; *POWDERED ACTIVATED CARBON; *RESEARCH REPORTS; *TRICHALOMETHANES; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 432-439P.

ABSTRACT: THE RESEARCH RESULTS REPORTED IN THIS ARTICLE PROMISE AN ATTRACTIVE, ECONOMICALLY FEASIBLE METHOD FOR MEETING THE US ENVIRONMENTAL PROTECTION AGENCY'S REGULATION OF 0.10 MG/L MAXIMUM CONTAMINANT LEVEL FOR TOTAL TRIHALOMETHANES (THMs). SEVERAL POWDERED ACTIVATED CARBONS (PACs), SIMILAR TO THE TYPE COMMONLY USED TO CONTROL TASTE AND ODOR IN DRINKING WATER, WERE DEVELOPED BY PRIVATE INDUSTRY WITH THE OBJECTIVE OF ADSORBING THM PRECURSORS. THE EFFICIENCY OF PAC IN ADSORBING THM PRECURSORS WAS ENHANCED BY ALLOWING A 30-MIN CONTACT TIME IN THE FLOCCULATION BASIN PRIOR TO PRECHLORINATION.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N8

IRIS ACCESSION NUMBER: EW006922

PUBLICATION DATE: AUG 81

TITLE: ACTIVATED CARBON ADSORPTION OF HUMIC SUBSTANCES.

PERSONAL AUTHOR: LEE, MICHAEL C.; AND OTHERS

DESCRIPTOR: *ACTIVATED CARBON; *ADSORPTION; *COAGULATION;
*DRINKING WATER; GRANULAR ACTIVATED CARBON; *HUMIC
SUBSTANCES; MATHEMATICAL MODELS; *RESEARCH REPORTS;
*TRICHALOMETHANES; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 440-446P.

ABSTRACT: IN SOME LOCATIONS, TRICHALOMETHANE FORMATION CAN BE KEPT AT ACCEPTABLE LEVELS BY ADJUSTING CHLORINATION PRACTICES AND REMOVING THM PRECURSORS BY COAGULATION AND FILTRATION. HOWEVER, IT IS SOMETIMES NECESSARY TO SUPPLEMENT THESE MEASURES WITH ADSORPTION ON GRANULAR ACTIVATED CARBON (GAC) BEDS. THE BENCH-SCALE STUDIES REPORTED HERE INDICATE THAT: (1) CARBON PORE SIZE IS AN IMPORTANT FACTOR IN THE CARBON'S CAPACITY FOR HUMIC SUBSTANCES; (2) ADSORPTIVE CAPACITY INCREASES AS MOLECULAR WEIGHT OF THE HUMIC SUBSTANCES DECREASES; AND (3) ALUM COAGULATION ENHANCES CARBON'S ADSORPTIVE CAPACITY, WHICH, IN TURN, INCREASES ITS RATE OF UPTAKE.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73
N8

IRIS ACCESSION NUMBER: EW006923

PUBLICATION DATE: AUG 81

TITLE: AN ASSESSMENT OF MICROBIAL ACTIVITY ON GAC.

DESCRIPTOR: *BIODEGRADATION; *DRINKING WATER; *GRANULAR
ACTIVATED CARBON; *MICROBIAL ACTIVITY; ORGANIC COMPOUNDS;
*RESEARCH NEEDS; *RESEARCH REPORTS; *WATER QUALITY; *WATER
TREATMENT

DESCRIPTIVE NOTE: 447-454P.

ABSTRACT: EVEN THOUGH MICROBIAL ACTIVITY ON GRANULAR ACTIVATED CARBON (GAC) IS KNOWN TO OCCUR NATURALLY IN THE COURSE OF TREATING WATER CONTAINING BIODEGRADABLE ORGANICS, ITS IMPORTANCE IN TREATMENT PLANT APPLICATIONS IS NOT CLEARLY UNDERSTOOD. SOME PILOT- AND FULL-SCALE STUDIES HAVE BEEN CONDUCTED IN EUROPE, BUT MORE INFORMATION IS NEEDED ON THE OVERALL RATE OF BIODEGRADATION AND THE OPTIMUM CONTACT TIME. FOR INSTANCE, SOME WATER QUALITY EXPERTS BELIEVE THAT LENGTHENING GAC SERVICE TIME IS POSSIBLE; OTHERS FEAR THAT HEALTH HAZARDS COULD BE CREATED IF NEW ORGANIC COMPOUNDS WERE PRODUCED. FAR MORE RESEARCH NEEDS TO BE UNDERTAKEN CONCERNING THE INFLUENCE OF MICROBIAL ACTIVITY ON GAC PERFORMANCE.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73
N8

IRIS ACCESSION NUMBER: EW006940

PUBLICATION DATE: 81

TITLE: GROUNDWATER RESOURCES - INVESTIGATION AND
DEVELOPMENT.

PERSONAL AUTHOR: MANDEL, S.; SHIFTAN, Z. L.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; AQUIFERS; GEOLOGY;
*GROUNDWATER; *INSTRUCTIONAL MATERIALS; *MEASUREMENT
TECHNIQUES; *POST SECONDARY EDUCATION; RESEARCH; TESTING;
*TEXTBOOKS; *WATER RESOURCES; *WATER WELLS; *WATER SUPPLY

DESCRIPTIVE NOTE: 269P. PRICE: \$32.00

ABSTRACT: THE PURPOSE OF THIS BOOK IS TO SHOW HOW GROUNDWATER INVESTIGATIONS SHOULD BE CONDUCTED, USING A SYSTEMATIC, WELL-DIRECTED EFFORT. IN PARTICULAR, THE VOLUME ADVISES THE PERSON IN CHARGE WHAT TO DO, WHAT TO AVOID, AND WHAT KIND OF RESULTS ONE CAN REASONABLY EXPECT FROM THE APPLICATION OF DIFFERENT TECHNIQUES UNDER SPECIFIC CONDITIONS. CHAPTERS INCLUDE: OVERVIEW OF TERMS AND CONCEPTS; AQUIFER TYPES AND GROUNDWATER ENVIRONMENTS; MAPS AND SECTIONS; GEOPHYSICAL MODELS; DRILLING FOR EXPLORATION AND WATER SUPPLY; PUMPING TESTS; WATER LEVEL MEASUREMENTS, HYDROGRAPHS, AND WATER LEVEL MAPS; INTERPRETATION AND UTILIZATION OF SPRING FLOW; GEOCHEMICAL METHODS; ENVIRONMENTAL ISOTOPE TECHNIQUES; DELINEATION OF GROUNDWATER SYSTEMS; GROUNDWATER BALANCES; CRITERIA FOR THE REGIONAL EXPLOITATION OF GROUNDWATER; GROUNDWATER OBSERVATION NETWORKS; AND THE METHODOLOGY OF GROUNDWATER INVESTIGATIONS.

AVAILABILITY: ACADEMIC PRESS, INC., ORDER DEPARTMENT, 111
FIFTH AVENUE, NEW YORK, NY 10003

IRIS ACCESSION NUMBER: EW006941

PUBLICATION DATE: 81

TITLE: POWER PLANT CHLORINATION - A BIOLOGICAL AND CHEMICAL
ASSESSMENT.

PERSONAL AUTHOR: HALL, LENWOOD W., JR.; AND OTHERS

DESCRIPTOR: ANALYTICAL TECHNIQUES; CHEMISTRY;
*CHLORINATION; *CHLORINE; *ECOLOGICAL EFFECTS; EFFLUENTS;
ESTUARIES; *INSTRUCTIONAL MATERIALS; *POST SECONDARY
EDUCATION; *POWER PLANTS; RESEARCH NEEDS; *RESEARCH REVIEWS;
TEXTBOOKS; *TOXICITY; WATER ANALYSIS; *WATER TREATMENT

DESCRIPTIVE NOTE: 237P. PRICE: \$39.95

ABSTRACT: THE OBJECTIVES OF THIS BOOK WERE TO COLLECT, SYNTHESIZE AND CRITICALLY REVIEW CHLORINE DATA RELATED TO BIOFOULING CONTROL IN THERMOELECTRIC POWER PLANTS. MAJOR AREAS INVESTIGATED WERE THE CHEMISTRY OF CHLORINE IN FRESH-ESTUARINE AND MARINE WATERS; THE TOXICITY OF CHLORINE AND CHLORINE-INDUCED OXIDANTS TO AQUATIC BIOTA; AND THE EFFECTS OF CHLORINE AT POPULATION, COMMUNITY AND ECOSYSTEM LEVELS. THE PRIMARY OBJECTIVE WAS TO IDENTIFY DEFICIENCIES IN AVAILABLE INFORMATION AND ONGOING RESEARCH PROGRAMS IN ORDER TO RECOMMEND FUTURE RESEARCH ON THE ECOLOGICAL EFFECTS OF POWER PLANT COOLING WATER CHLORINATION.

AVAILABILITY: ANN ARBOR SCIENCE PUBLISHERS, INC.,
BUTTERWORTH, 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW006942
PUBLICATION DATE: 80

TITLE: CITIZEN PARTICIPATION IN THE AMERICAN FEDERAL SYSTEM.

DESCRIPTOR: *CITIZEN PARTICIPATION; CITIZEN ROLE;
*EVALUATION; *FEDERAL GOVERNMENT; *GOVERNMENT ROLE; GRANTS;
*RECOMMENDATIONS; REGULATIONS; *REPORTS; STATE GOVERNMENT;
*UNITED STATES

DESCRIPTIVE NOTE: 357P.

ABSTRACT: THIS REPORT BY THE ADVISORY COMMISSION ON INTERGOVERNMENTAL RELATIONS EXAMINES CITIZEN PARTICIPATION IN THE AMERICAN FEDERAL SYSTEM OF GOVERNMENT. THE REPORT LOOKS SPECIFICALLY AT PARTICIPATION IN THE FEDERAL GRANT SYSTEM, FEDERAL ACTIVITIES, STATE GOVERNMENTS, AND LOCAL GOVERNMENTS. ALSO INCLUDED IS AN OVERVIEW OF CONTEMPORARY CITIZEN PARTICIPATION AND AN EXAMINATION OF AMERICAN TRADITIONS OF CITIZEN PARTICIPATION. THE REPORT CONCLUDES WITH A SET OF FINDINGS, ISSUES, AND RECOMMENDATIONS RELATED TO THE MAJOR TOPICS OF INVESTIGATION.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON, DC 20402

IRIS ACCESSION NUMBER: EW006943

PUBLICATION DATE: AUG 81

TITLE: ACADEMICIANS WORKSHOP ON SMALL ALTERNATIVE WASTEWATER SYSTEMS.

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; COST EFFECTIVENESS;
*DESIGN; EQUIPMENT; *FACILITIES; MANAGEMENT; *ONSITE TREATMENT; *OPERATIONS (WASTEWATER); PLANNING; *RURAL AREAS;
*SEWERS; SITE EVALUATION; *WASTE DISPOSAL; *WASTEWATER TREATMENT; *WORKSHOPS

DESCRIPTIVE NOTE: 610P. PRICE: \$1.00 PER DOCUMENT PLUS \$0.03 PER PAGE.

ABSTRACT: THIS PUBLICATION CONTAINS THE RESULTS OF THE ACADEMICIANS WORKSHOP ON SMALL ALTERNATIVE WASTEWATER SYSTEMS, HELD AUGUST 4-7, 1981, IN DENVER, COLORADO. TOPICS INCLUDE: WASTEWATER MODIFICATION, SITE EVALUATION FOR ONSITE TREATMENT AND DISPOSAL SYSTEMS, TRENCHES AND BEDS, MOUND SYSTEMS, DISTRIBUTION NETWORKS, SEPTIC TANKS, SUBSURFACE SOIL ADSORPTION SYSTEM DESIGN (WORK SESSION), ARTIFICIALLY DRAINED SYSTEMS, EVAPOTRANSPIRATION AND EVAPOTRANSPIRATION/ADSORPTION SYSTEMS, INTERMITTENT SAND FILTERS, FACILITY PLANNING PROCESS, CASE STUDY - WOODROCK, PROPOSAL FOR FACILITY PLANNING (WORK SESSION), SMALL DIAMETER SEWERS, VACUUM SEWERAGE, LOW PRESSURE SEWER SYSTEMS, COST EFFECTIVENESS ANALYSIS, NOVEL ALTERNATIVES, SEPTAGE MANAGEMENT, AND MANAGEMENT PLANS AND IMPLEMENTATION ISSUES.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006945
PUBLICATION DATE: 79

TITLE: THE HYDRAULIC HANDBOOK.

DESCRIPTOR: CHEMISTRY; ELECTRICAL SYSTEMS; ENGINEERING;
*EQUIPMENT; *HANDBOOKS; *HYDRAULICS; INSTALLATION;
*INSTRUCTIONAL MATERIALS; PHYSICS; PIPES; *PUMPS; *POST SECONDARY EDUCATION; TESTING

DESCRIPTIVE NOTE: 248P. PRICE: \$8.50

ABSTRACT: THIS HANDBOOK SERVES AS AN AID TO ENGINEERS WHO PLAN THE INSTALLATION OF PUMPING MACHINERY AND TO PLANT MANAGERS AND OPERATORS WHO ARE RESPONSIBLE FOR THE EFFICIENT FUNCTIONING OF THIS MACHINERY. CONTENTS INCLUDE: HYDRAULIC FUNDAMENTALS; PIPE FRICTION-WATER; CONVERSION FACTORS; WATER DATA; VISCOUS LIQUIDS; VOLATILE LIQUIDS; SOLIDS IN SUSPENSION; CHEMICAL LIQUIDS; MECHANICAL DATA; ELECTRICAL DATA; PUMP TESTING; AND FAIRBANKS HORSE PUMP PRODUCTS.

AVAILABILITY: FAIRBANKS HORSE PUMP DIVISION, COLT INDUSTRIES CORPORATION, 3601 FAIRBANKS AVENUE, KANSAS CITY, KS 66110

IRIS ACCESSION NUMBER: EW006946

PUBLICATION DATE: 77

TITLE: PROCEDURES MANUAL FOR GROUND WATER MONITORING AT SOLID WASTE DISPOSAL FACILITIES.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; FACILITIES;
*GROUNDWATER; *INSTRUCTIONAL MATERIALS; LEACHATES;
*MONITORING; *POST SECONDARY EDUCATION; *SOLID WASTES;
*WASTE DISPOSAL; *WATER QUALITY; WATER RESOURCES

DESCRIPTIVE NOTE: 269P.

ABSTRACT: THIS MANUAL BRINGS INTO ONE VOLUME, INFORMATION VALUABLE AS A REFERENCE SOURCE FOR THOSE PERSONS ACTIVELY INVOLVED IN OR PLANNING GROUNDWATER MONITORING PROGRAMS AT SOLID WASTE DISPOSAL FACILITIES. THE MANUAL IS PRIMARILY ADDRESSED TO THE SUPERVISORY PERSONNEL OF SOLID WASTE REGULATORY AGENCIES, ALTHOUGH ITS CONTENTS CAN BE READILY USED BY ENGINEERS IN THE FIELD. THIS MANUAL PROVIDES FUNDAMENTALS AND PROVIDES GUIDANCE TO ASSIST THE USER IN: ESTABLISHING THE NEED FOR MONITORING; ASSIGNING PRIORITIES FOR FACILITIES TO BE MONITORED; AND IMPLEMENTING AND DIRECTING COST-EFFECTIVE, ON-GOING MONITORING PROGRAMS RESPONSIBLE TO THE PURPOSES AND DATA NEEDS ESTABLISHED. CHAPTERS INCLUDE: (1) MONITORING NETWORKS; (2) MONITORING AND WELL TECHNOLOGY; (3) INDICATORS OF LEACHATE; (4) FUNDAMENTALS OF LEACHATE; (5) SAMPLE WITHDRAWAL, STORAGE, AND PRESERVATION; AND (6) ANALYTICAL METHODS.

AVAILABILITY: SOLID WASTE INFORMATION DISTRIBUTION OFFICE, U. S. ENVIRONMENTAL PROTECTION AGENCY, CINCINNATI, OH 45268

IRIS ACCESSION NUMBER: EW006951

PUBLICATION DATE: JUL 81

TITLE: COASTAL ZONE MANAGEMENT AND PLANNING. 1977-JUNE, 1981. (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *BIBLIOGRAPHIES; CITIZEN PARTICIPATION; *COASTAL ZONES; *ECOLOGY; ECONOMIC FACTORS; FISHERIES; GOVERNMENT ROLE; *LAND USE; *MANAGEMENT; *NATURAL RESOURCES; *OCEANOGRAPHY; *PLANNING; RECREATION; *URBANIZATION; WATER RIGHTS

DESCRIPTIVE NOTE: 258P. PB81-807240

ABSTRACT: THE PLANNING AND MANAGEMENT OF BOTH NATURAL RESOURCES AND URBAN GROWTH IN THE COASTAL ZONE ARE COVERED IN THIS BIBLIOGRAPHY. THE TOPICS INCLUDE MANAGEMENT AND PLANNING CONCERNING: ECOLOGY, WATER RIGHTS, ENVIRONMENTAL PROBLEMS, LAND USE, FISHERIES, RECREATION, ECONOMIC DEVELOPMENT, AND SHORE PROTECTION. GOVERNMENT ADMINISTRATION AND CITIZEN PARTICIPATION. THIS UPDATED BIBLIOGRAPHY CONTAINS 251 CITATIONS, 36 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006952

PUBLICATION DATE: JUL 81

TITLE: SEPTIC TANK AND HOUSEHOLD SEWAGE SYSTEMS DESIGN AND USE. 1970-JUNE, 1981. (CITATIONS FROM THE ENGINEERING INDEX DATA BASE).

DESCRIPTOR: *BIBLIOGRAPHIES; DESIGN; *GROUNDWATER; INFORMATION SOURCES; *OPERATIONS (WASTEWATER); POLLUTION CONTROL; PUBLIC HEALTH; RESEARCH REPORTS; *RESIDENTIAL UNITS; *SEPTIC TANKS; *SEWAGE SYSTEMS; SOILS; *WASTEWATER TREATMENT; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 202P. PB81-807315

ABSTRACT: THIS BIBLIOGRAPHY PROVIDES WORLDWIDE RESEARCH REPORTS ON SEPTIC TANKS AND OTHER SEWAGE TREATMENT UNITS USED FOR HOUSEHOLD SEWAGE SYSTEMS. CONSTRUCTION MATERIALS, DESIGN, SERVICE LIFE, AND A COMPARISON OF SYSTEMS ARE DESCRIBED. THE SUITABILITY OF SOILS FOR DRAINAGE AND ADSORPTION TO PREVENT POLLUTION OF GROUNDWATER FROM BACTERIA AND VIRUSES ARE DISCUSSED. PURIFICATION PROCESSES AND THE ENVIRONMENTAL CONSTRAINTS OF DISPOSAL SYSTEMS ARE INCLUDED. THIS UPDATED BIBLIOGRAPHY CONTAINS 194 CITATIONS, 24 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006953

PUBLICATION DATE: JUL 81

TITLE: OCEAN LAW. 1977-MAY, 1981. (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *BIBLIOGRAPHIES; DRILLING; *ENVIRONMENTAL LEGISLATION; FISHING; *INTERNATIONAL LAWS; *LEGAL ASPECTS; MINING; *OCEANOLOGY; *OCEANS; *POLICY; *WATER POLLUTION

DESCRIPTIVE NOTE: 108P. PDB1-807349

ABSTRACT: THIS BIBLIOGRAPHY CITES REPORTS ON INTERNATIONAL LAWS ON FISHING, UNDERSEA MINING, TERRITORIAL WATERS, SEAFLOOR MINERALS, OFFSHORE DRILLING, AND WATER POLLUTION. MANY OF THE REPORTS ARE CONCERNED WITH GOVERNMENT POLICIES AND POLITICS RELATED TO OCEAN LAW. THIS UPDATED BIBLIOGRAPHY CONTAINS 100 CITATIONS, 52 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006954

PUBLICATION DATE: DEC 78

TITLE: THE DETERMINATION OF RESIDUAL CHLORINE AND TURBIDITY IN DRINKING WATER: INSTRUCTOR'S MANUAL.

PERSONAL AUTHOR: PFAFF, JACK

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHLORINE; *DRINKING WATER; *DISINFECTION; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *OPERATIONS (WATER); *POST SECONDARY EDUCATION; *RESIDUAL CHLORINE; *TEACHING GUIDES; *TURBIDITY; *WATER TREATMENT; WATER QUALITY

DESCRIPTIVE NOTE: 77P. PB81-226946

ABSTRACT: THIS INSTRUCTOR'S MANUAL IS FOR USE BY PERSONS TEACHING THE DETERMINATION OF RESIDUAL CHLORINE AND TURBIDITY. IT IS TO BE USED WITH THE STUDENT MANUAL, WITH THE SAME TITLE. THIS MANUAL IS A COMPLETE PLAN FOR INSTRUCTION. INCLUDED ARE: PRE-COURSE ACTIVITIES, MILESTONES, RESOURCES AVAILABLE TO ASSIST IN INSTRUCTION, A COURSE AGENDA, DESCRIPTION OF SLIDES, A PRE- AND POST-TEST AND A LIST OF NEEDED EQUIPMENT AND REAGENTS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW006955

PUBLICATION DATE: AUG 79

TITLE: METHODS FOR THE DETERMINATION OF BACTERIOLOGICAL CONTAMINANTS IN DRINKING WATER: TRAINING MANUAL.

PERSONAL AUTHOR: RUSSOMANNO, ROCCO

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CONTAMINATION;
*DRINKING WATER; *INSTRUCTIONAL MATERIALS; *LABORATORY
PROCEDURES; *LABORATORY TESTS; *POST SECONDARY EDUCATION;
SAFETY; TESTING; *TRAINING MANUALS; WATER TREATMENT; WATER
QUALITY

DESCRIPTIVE NOTE: 395P. PRICE: \$1.00 PLUS \$.03 PER PAGE.

ABSTRACT: THIS LABORATORY MANUAL IS FOR USE BY THOSE WHO
MUST ANALYZE DRINKING/POTABLE WATER SAMPLES FOR
BACTERIOLOGICAL CONSTITUENTS. EACH OF THE LABORATORY
PROCEDURES IS WRITTEN IN A STEP-BY-STEP FORMAT. FOR EACH
PROCEDURE, AN EQUIPMENT AND REAGENT LIST IS PROVIDED. TOPICS
IN THE MANUAL INCLUDE: (1) COLLECTION AND HANDLING OF
DRINKING WATER SAMPLES; (2) COLIFORM TEST BY THE MPN METHOD
FOR DRINKING WATER; (3) COMPLETED TEST FOR THE MPN METHOD
FOR DRINKING WATER; (4) TOTAL COLIFORM TEST FOR DRINKING
WATER BY THE MEMBRANE FILTER METHOD; (5) VERIFIED MEMBRANE
FILTER TEST FOR DRINKING WATER; (6) STANDARD PLATE COUNT;
(7) RESIDUAL CHLORINE AND TURBIDITY; (8) COLIFORM TEST BY
THE MULTIPLE DILUTION TUBE METHOD (MDN); (9) COMPLETED TEST
FOR THE MPN METHOD; (10) TOTAL COLIFORM TEST BY THE MEMBRANE
FILTER METHOD; AND (11) LABORATORY SAFETY PRACTICES.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, THE
OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD - 3RD FLOOR,
COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006958

PUBLICATION DATE: 81

TITLE: SUBSURFACE WASTEWATER INJECTION.

PERSONAL AUTHOR: WARNER, DON L.; LEHR, JAY H.

DESCRIPTOR: *DESIGN; *FACILITIES; *GEOLOGY; *HYDROLOGY;
MONITORING; *OPERATIONS (WASTEWATER); *WASTE DISPOSAL;
*WASTEWATER TREATMENT; *WASTEWATER INJECTION; WATER
RESOURCES

DESCRIPTIVE NOTE: 344P. PRICE: \$15.00

ABSTRACT: THIS BOOK DESCRIBES THE DESIGN, CONSTRUCTION,
OPERATION, AND ABANDONMENT OF SUBSURFACE WASTEWATER
INJECTION SYSTEMS. GEOLOGIC/HYDROLOGIC, PHYSICAL, CHEMICAL,
AND BIOLOGICAL CHARACTERISTICS OF WATERS AND FORMATIONS ARE
CONSIDERED. MONITORING REQUIREMENTS ARE DISCUSSED, AS ARE
PROPER RECORD-KEEPING AND OTHER PERTINENT TOPICS. THIS BOOK
WAS ORIGINALLY PREPARED AS A CONTRACT REPORT TO EPA BY THE
NATIONAL WATER WELL ASSOCIATION.

AVAILABILITY: PRENIER PRESS, 2914 DOMINGO AVENUE, BERKELEY,
CA 94705

IRIS ACCESSION NUMBER: EW006962

TITLE: A COURSE ON TROUBLESHOOTING O & M PROBLEMS IN
WASTEWATER TREATMENT PLANTS.

DESCRIPTOR: *ACTIVATED SLUDGE; *CHLORINATION;
*INSTRUCTIONAL MATERIALS; *LAND TREATMENT; *MAINTENANCE;
*OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *SOLIDS
HANDLING; *TEACHING GUIDES; TROUBLESHOOTING; *WASTEWATER
TREATMENT PLANTS

DESCRIPTIVE NOTE: 212P. PRICE: \$1.00 PLUS \$.03 PER PAGE.

ABSTRACT: THIS MANUAL PROVIDES INSTRUCTORS MATERIALS FOR A
COURSE ON TROUBLESHOOTING OPERATIONS AND MAINTENANCE
PROBLEMS IN WASTEWATER TREATMENT PLANTS. THE MANUAL CONTAINS
SECTIONS FOR FOUR LESSONS: ACTIVATED SLUDGE, SOLIDS
HANDLING, LAND TREATMENT, AND CHLORINATION. EACH SECTION
CONTAINS SEVERAL SUBDIVISIONS, MAJOR STUDENT OBJECTIVES, KEY
POINTS AND CONTENT, APPROACH, AND MATERIALS.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, 1200
CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006963

PUBLICATION DATE: 75

TITLE: OPERATOR'S POCKET GUIDE TO ACTIVATED SLUDGE - PART
II PROCESS CONTROL & TROUBLE SHOOTING.

DESCRIPTOR: *ACTIVATED SLUDGE; *LABORATORY TECHNIQUES;
*MAINTENANCE; *OPERATIONS (WASTEWATER); *PROCESS CONTROL;
SLUDGE; *TROUBLESHOOTING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 48P. PRICE: \$1.50 - FOR THE FIRST 10
COPIES, ADDITIONAL COPIES HAVE DISCOUNTED PRICES.

ABSTRACT: THIS BOOKLET IS PREPARED FOR FIELD USE AND IS
DIRECTED TOWARD SUPPLEMENTING A PLANT'S REGULAR OPERATION
AND MAINTENANCE MANUAL. THE GUIDE PROVIDES A REVIEW OF
CONTROL TECHNOLOGY, EMPHASIZES THE INTERRELATIONSHIPS OF
VARIOUS CONTROL PARAMETERS AND A REVIEW OF PROCESS
TROUBLESHOOTING. SECTIONS INCLUDE: CONTROLLING THE PROCESS;
MONITORING THE PROCESS; AND TROUBLESHOOTING.

AVAILABILITY: CRS GROUP ENGINEERS, INC., STRAAM DIVISION,
P. O. BOX 02201, PORTLAND, OR 97202

IRIS ACCESSION NUMBER: EW006964

PUBLICATION DATE: MAR 71

TITLE: SEWAGE TREATMENT PLANT DEPENDABILITY WITH SPECIAL
REFERENCE TO ACTIVATED SLUDGE PROCESS.

PERSONAL AUTHOR: WEST, A. W.

DESCRIPTOR: *ACTIVATED SLUDGE; DESIGN; *FACILITIES;
*MANAGEMENT; *OPERATIONS (WASTEWATER); *PROCESS CONTROL;

***SEWAGE; *WASTEWATER TREATMENT**

DESCRIPTIVE NOTE: 14P. \$1.00 PLUS \$.03 PER PAGE.

ABSTRACT: THIS REPORT HAS BEEN DEVELOPED AS A REFERENCE FOR PLANT DEPENDABILITY LECTURES THAT THE WRITER HAS PRESENTED AT TRAINING SESSIONS, SYMPOSIA, AND WORKSHOPS. IT IS BASED ON FIRST-HAND OPERATIONAL EXPERIENCES AT DOZENS OF SEWAGE TREATMENT PLANTS. PART ONE DEALS WITH DESIGN CONSIDERATIONS AND CONTAINS THE FOLLOWING UNITS: TREATMENT PROCESSES, PILOT STUDIES, PLANT CAPABILITY, FLEXIBILITY, AND CONTROLLABILITY. PART TWO DEALS WITH OPERATIONAL CONTROL AND COVERS PERSONNEL, DUTY DELEGATION, CONTROL TESTS, AND PROCESS RELIABILITY.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006965

PUBLICATION DATE: APR 78

TITLE: PHYSICAL-CHEMICAL TREATMENT TECHNOLOGY - TRAINING MANUAL.

DESCRIPTOR: CARBON ADSORPTION; COAGULATION; COSTS; *DESIGN; DISINFECTION; FACILITIES; FILTRATION; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WASTEWATER); *PHYSICAL-CHEMICAL TREATMENT; *POST SECONDARY EDUCATION; SOLIDS; SLUDGE; TECHNOLOGY; *TRAINING MANUALS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 128P. PRICE: \$1.00 PLUS \$.03 PER PAGE.

ABSTRACT: THIS COURSE IS DESIGNED FOR PROFESSIONAL PERSONNEL ENGAGED IN THE SELECTION, DESIGN AND OPERATION OF PHYSICAL-CHEMICAL WASTEWATER TREATMENT FACILITIES. TOPICS COVERED INCLUDE: COAGULATION, SOLIDS REMOVAL, FLUX THEORY, FILTRATION, CARBON ADSORPTION, CHEMICAL OXIDATION IN WASTEWATER TREATMENT, CASE STUDIES, PHOSPHORUS CONTROL, ION EXCHANGE, ELECTRODIALYSIS, REVERSE OSMOSIS, CHLORINATION, ALTERNATIVE DISINFECTION, SLUDGE INCINERATION, AND COST ANALYSES OF PHYSICAL CHEMICAL TREATMENT AND SLUDGE DISPOSAL.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006966

PUBLICATION DATE: SEP 80

TITLE: ORGANIC ANALYSES IN WATER QUALITY CONTROL PROGRAMS - INSTRUCTOR'S GUIDE.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; BIOCHEMICAL OXYGEN DEMAND; *CHEMISTRY; DISSOLVED OXYGEN; GREASE; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; NITROGEN; OIL; ORGANIC ANALYSES; *POST SECONDARY EDUCATION; SURFACTANTS; *TEACHING GUIDES; *WATER QUALITY

DESCRIPTIVE NOTE: 290P. PRICE: \$1.00 PLUS \$.03 PER PAGE.

ABSTRACT: THIS INSTRUCTOR'S GUIDE CONSISTS OF TWO PARTS. PART I CONTAINS INFORMATION REQUIRED FOR COURSE PLANNING AND MANAGEMENT. PART II CONSISTS OF A SERIES OF INSTRUCTIONAL PACKAGE WORKSHEETS WHICH SET FORTH LEARNING OBJECTIVES AND THE INSTRUCTIONAL APPROACH USED BY NTOTC FOR EACH TOPIC INCLUDED IN THE TRAINING MANUAL. THIS COURSE IS FOR CHEMISTS AND TECHNICIANS WITH LITTLE OR NO EXPERIENCE IN ORGANIC ANALYSES COMMONLY REQUIRED FOR NPDES AND NIPDWR REGULATIONS AND FOR OTHER WATER QUALITY PROGRAMS. EMPHASIS IS ON LABORATORY OPERATIONS.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006967

PUBLICATION DATE: MAY 79

TITLE: EVALUATION OF FLOW EQUALIZATION IN MUNICIPAL WASTEWATER TREATMENT.

DESCRIPTOR: *COSTS; *DESIGN; FACILITIES; *FLOW EQUALIZATION; *LOW MEASUREMENT; PLANNING; *PERFORMANCE EVALUATION; *RESEARCH REVIEWS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 230P. PRICE: \$1.00 PLUS \$.03 PER PAGE.

ABSTRACT: THE PURPOSE OF THIS MANUAL IS TO ASSEMBLE AND DISSEMINATE ALL AVAILABLE INFORMATION ON EQUALIZATION APPLICATIONS TO MUNICIPAL WASTEWATER TREATMENT DEVELOPED TO DATE. AVAILABLE INFORMATION FROM ALL SOURCES WAS REVIEWED AND EVALUATED. INFORMATION ON BENEFITS AND COSTS OF EQUALIZATION WERE ANALYZED. RECOMMENDATIONS CONCERNING EQUALIZATION IN THE PLANNING AND DESIGN OF MUNICIPAL SEWERAGE SYSTEMS ARE PRESENTED FOR CONSIDERATION AND USE. CONTENTS INCLUDE: QUANTITATIVE METHODS; SUMMARY OF EXISTING FLOW EQUALIZATION FACILITIES; EQUALIZATION PERFORMANCE EVALUATION; AND THE DEVELOPMENT OF COSTS FOR EQUALIZATION AND TREATMENT PROCESSES.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006968

PUBLICATION DATE: 71

TITLE: BACTERIOLOGICAL EXAMINATION OF DRINKING WATER - TRAINING COURSE MANUAL.

DESCRIPTOR: *BACTERIOLOGY; *DRINKING WATER; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *LABORATORY TECHNIQUES; *MICROBIOLOGY; *OPERATIONS (WATER); *POST SECONDARY EDUCATION; *TEACHING GUIDES; TESTING; TRAINING PROGRAMS; *WATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 206P. PRICE: \$1.00 PLUS \$.03 PER PAGE.

ABSTRACT: THIS COURSE IS DESIGNED TO PROVIDE MICROBIOLOGICAL TRAINING FOR INDIVIDUALS DIRECTLY INVOLVED

IN THE BACTERIOLOGICAL EXAMINATION OF DRINKING WATER. THIS COURSE GUIDE PRESENTS LECTURE OUTLINES, LABORATORY PROCEDURES, AND REFERENCES FOR THE FOLLOWING UNITS: GENERAL BACKGROUND, PROCEDURES, STATISTICS, LABORATORY EVALUATION, AND WATER QUALITY FACTORS.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006969

PUBLICATION DATE: AUG 81

TITLE: RESPONSIBILITIES TO ADDRESS O & M CONSIDERATIONS IN THE CONSTRUCTION GRANTS PROCESS - INSTRUCTOR'S MANUAL.

DESCRIPTOR: *CONSTRUCTION GRANTS; DESIGN; EVALUATION; FACILITIES; GRANT PROGRAMS; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *OPERATIONS (WASTEWATER); PLANNING; *POST SECONDARY EDUCATION; *REQUIREMENTS; *TEACHING GUIDES; TRAINING PROGRAMS; *WASTEWATER TREATMENT PLANTS

DESCRIPTIVE NOTE: 141P. PRICE: \$1.00 PLUS \$.03 PER PAGE.

ABSTRACT: THIS INSTRUCTOR'S MANUAL IS DESIGNED AS A GUIDE FOR TEACHERS OF THE ONE-DAY TRAINING WORKSHOP ENTITLED, "RESPONSIBILITIES TO ADDRESS OPERATIONS AND MAINTENANCE CONSIDERATIONS IN THE CONSTRUCTION GRANTS PROCESS." THIS GUIDE IS TO BE USED BY THE INSTRUCTOR AS A CURRICULUM GUIDE IN THE PRESENTATION OF LESSONS WHICH WILL PROVIDE MUNICIPAL REPRESENTATIVES WITH BASIC INFORMATION THAT WILL MAKE THEM AWARE OF THE NEED FOR O & M CONSIDERATIONS. THIS COURSE OF STUDY: (1) ADDRESSES THE FACTORS THAT CONTRIBUTE TO THE POOR PERFORMANCE OF WASTEWATER TREATMENT FACILITIES BUILT UNDER THE FEDERALLY FUNDED CONSTRUCTION GRANTS PROGRAMS; (2) DESCRIBES SPECIFIC STEPS THAT SHOULD BE FOLLOWED BY EPA AND STATE AGENCY PERSONNEL THROUGHOUT THE TECHNICAL AND PROCEDURAL REVIEW PROCESS; AND (3) PROVIDES THE NECESSARY GUIDELINES FOR INCREASING EPA'S AND THE STATE AGENCY'S EFFECTIVENESS IN IMPLEMENTING O & M CONCERNS IN THE CONSTRUCTION GRANTS PROCESS.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006970

PUBLICATION DATE: MAY 81

TITLE: RESPONSIBILITIES TO ADDRESS O & M CONSIDERATIONS IN THE CONSTRUCTION GRANTS PROCESS - PARTICIPANT HANDBOOK.

DESCRIPTOR: *CONSTRUCTION GRANTS; DESIGN; EVALUATION; *FACILITIES; GRANT PROGRAMS; *HANDBOOKS; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *OPERATIONS (WASTEWATER); PLANNING; *POST SECONDARY EDUCATION; TRAINING PROGRAMS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 163P. PRICE: \$1.00 PLUS \$.03 PER PAGE.

115

ABSTRACT: THIS HANDBOOK IS DESIGNED AS A SUPPLEMENT TO A ONE-DAY WORKSHOP ENTITLED, "RESPONSIBILITY TO ADDRESS O & M CONSIDERATIONS IN THE CONSTRUCTION GRANTS PROCESS." THE PRIMARY TARGET AUDIENCE FOR THIS WORKSHOP IS THE APPROPRIATE REPRESENTATIVES OF MUNICIPALITIES WHO WILL RECEIVE OR HAVE RECEIVED A STEP I GRANT UNDER TITLE II OF THE CLEAN WATER ACT. THIS HANDBOOK IS TO BE USED BY THE PARTICIPANT: (1) TO FACILITATE UNDERSTANDING OF MATERIALS COVERED IN THE WORKSHOP; (2) AS A HANDBOOK FOR THE WORKSHOP; AND (3) AS A POSTCOURSE REFERENCE. UNITS INCLUDE: GRANTEE RESPONSIBILITIES, OPERATIONAL CONSIDERATIONS, PLAN OF OPERATION, ELEMENTS OF A GOOD O & M MANUAL, AND START-UP SERVICES AND INSPECTIONS.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006971

PUBLICATION DATE: JUN 81

TITLE: O & M CONSIDERATIONS IN THE CONSTRUCTION GRANTS PROCESS - INSTRUCTOR'S MANUAL.

DESCRIPTOR: *CONSTRUCTION GRANTS; DESIGN; EVALUATION; *FACILITIES; *GRANT PROGRAMS; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *OPERATIONS (WASTEWATER); *PLANNING; *POST SECONDARY EDUCATION; *STUDY GUIDES; TRAINING PROGRAMS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 320P. PRICE: \$1.00 PLUS \$.03 PER PAGE.

ABSTRACT: THIS INSTRUCTOR'S MANUAL IS DESIGNED AS A GUIDE FOR INSTRUCTOR'S OF A 3 1/2 DAY TRAINING COURSE ENTITLED, "O & M CONSIDERATIONS IN CONSTRUCTION GRANTS PROCESS." THIS TRAINING PROGRAM HAS BEEN DEVELOPED FOR STATE AGENCY AND EPA REVIEW PERSONNEL WHO ARE ASSUMING OR HAVE ASSUMED DELEGATED RESPONSIBILITY FOR THE CONSTRUCTION GRANTS PROGRAM. IT WILL FOCUS ON THE INCLUSION OF OPERATIONAL CONSIDERATIONS THROUGHOUT THE TECHNICAL AND PROCEDURAL REVIEW PROCESS OF A TREATMENT FACILITY CONSTRUCTION PROJECT. THIS TEACHING GUIDE CONTAINS LECTURE OUTLINES, LESSON OBJECTIVES AND INSTRUCTIONAL MATERIALS FOR THE PROGRAM.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006972

PUBLICATION DATE: JUN 81

TITLE: O & M CONSIDERATIONS IN THE CONSTRUCTION GRANTS PROCESS - PARTICIPANT HANDBOOK.

DESCRIPTOR: *CONSTRUCTION GRANTS; DESIGN; EVALUATION; *FACILITIES; *GRANT PROGRAMS; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *OPERATIONS (WASTEWATER); *PLANNING; *POSTSECONDARY EDUCATION; *STUDY GUIDES; TRAINING PROGRAMS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 288P. PRICE: \$1.00 PLUS \$.03 PER PAGE.

ABSTRACT: THIS HANDBOOK IS DESIGNED AS A SUPPLEMENT TO THE 3 1/2 DAY TRAINING COURSE ENTITLED, "O & M CONSIDERATIONS IN THE CONSTRUCTION GRANTS PROCESS." THE INFORMATION PROVIDED IN THIS HANDBOOK IS OF PRIMARY IMPORTANCE TO INDIVIDUALS INVOLVED IN REVIEWING AND IMPROVING FACILITY PLANS, PLANS AND SPECIFICATIONS, O & M MANUALS, CHANGE ORDERS, START-UP SERVICES, AND THE PLAN OF OPERATION. EACH UNIT CONTAINS A LESSON OUTLINE, OBJECTIVES, AND LECTURE NOTES.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006973

PUBLICATION DATE: JAN 78

TITLE: UPDATED SUMMARY OF THE OPERATIONAL CONTROL PROCEDURES FOR THE ACTIVATED SLUDGE PROCESS.

PERSONAL AUTHOR: WEST, ALFRED W.

DESCRIPTOR: *ACTIVATED SLUDGE; *FACILITIES; *LABORATORY PROCEDURES; *OPERATIONS (WASTEWATER); *PROCESS CONTROL; *QUALITY CONTROL; *SLUDGE; *TRAINING PROGRAMS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 17P. PRICE: \$1.00 PLUS \$.03 PER PAGE.

ABSTRACT: THIS SUMMARY PROVIDES A CURRENT DIGEST OF THE COORDINATED ACTIVATED SLUDGE PLANT CONTROL PROCEDURES THAT HAVE BEEN FOUND MOST USEFUL BY THE OPERATIONAL TECHNOLOGY BRANCH DURING ONSITE PLANT OPERATIONS AND OPERATOR TRAINING PROGRAMS. MAIN SECTIONS ARE: CONTROL TESTS; SLUDGE QUALITY; PROCESS CONTROL; AND STEP-FEED OPERATION.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006974

PUBLICATION DATE: MAR 80

TITLE: GUIDELINES FOR MEDIA PRODUCTION.

DESCRIPTOR: *AUDIOVISUAL MATERIALS; *COMMUNICATIONS; EVALUATION; *GUIDELINES; INSTRUCTIONAL MATERIALS; *INSTRUCTIONAL MEDIA; MANUALS; *MEDIA PRODUCTION; *MEDIA SELECTION

DESCRIPTIVE NOTE: 37P. PRICE: \$1.00 PLUS \$.03 PER PAGE.

ABSTRACT: THIS REPORT IS DESIGNED FOR NTOTC STAFF AND GRANTEEES OR CONTRACTORS WHO WILL BE PRODUCING AUDIOVISUAL MATERIAL FOR EPA OR AS A PART OF A RELATED ACTIVITY. THE MANUAL PROVIDES: (1) GUIDANCE IN THE SELECTION OF APPROPRIATE AND FEASIBLE MEDIA; (2) CRITERIA FOR PRODUCTION IN EACH MEDIA FORMAT; AND (3) GUIDELINES FOR EVALUATION OF EACH MEDIUM. UNITS PRESENTED IN THESE THREE SECTIONS

INCLUDE: MEDIA OPTIONS, BASIC PROCEDURES, PRODUCTION PLANNING, VISUAL FORMATS AND LEGIBILITY, OVERHEAD TRANSPARENCIES, SLIDES, FILMSTRIPS, MOTION PICTURES AND TELEVISION, AUDIOTAPE, FIELD TESTING, AND PRODUCT EVALUATION.

AVAILABILITY: EPA INFORMATION DISSEMINATION PRODUCTION, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006975

PUBLICATION DATE: 81

TITLE: POLYELECTROLYTES FOR WATER AND WASTEWATER TREATMENT.

PERSONAL AUTHOR: SCHWOYER, WILLIAM L. K.

DESCRIPTOR: *CHEMISTRY; CLARIFICATION; COAGULANTS; DESIGN; DEWATERING; ENGINEERING; FILTRATION; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WASTEWATER); *OPERATIONS (WATER); *POLYELECTROLYTES; *POST SECONDARY EDUCATION; *RESEARCH REPORTS; *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 277P. PRICE: \$74.95, OUTSIDE U.S. \$84.95

ABSTRACT: THIS TEXT PRESENTS MATERIAL ON THE APPLICATION OF POLYELECTROLYTE RESEARCH AND DEVELOPMENT TO WATER AND WASTEWATER TREATMENT. IT IS INTENDED FOR CONSULTING ENGINEERS ENGAGED IN WATER AND WASTEWATER PLANT DESIGN, ENGINEERS RESPONSIBLE FOR PLANT OPERATIONS, AND AS AN AUXILIARY TEST FOR GRADUATE AND ADVANCED UNDERGRADUATE LEVEL ENVIRONMENTAL ENGINEERING STUDENTS. CHAPTERS INCLUDE: (1) SYNTHETIC POLYELECTROLYTES; (2) NATURAL POLYMER SOURCES; (3) ELECTROKINETICS; (4) COAGULATION FOR GRAVITY-TYPE CLARIFICATION AND THICKENING; (5) POLYELECTROLYTES AND COAGULANTS FOR THE FLOTATION PROCESS; (6) SLUDGE DEWATERING; (7) THE USE OF POLYELECTROLYTES IN FILTRATION PROCESSES; AND (8) POLYELECTROLYTE MAKEUP AND HANDLING.

AVAILABILITY: CRC PRESS, INC., 2000 N.W. 24TH STREET, BOCA RATON, FL 33431

IRIS ACCESSION NUMBER: EW006976

PUBLICATION DATE: JUL 76

TITLE: LABORATORY CONTROL FOR WASTEWATER FACILITIES - WASTEWATER TECHNOLOGY: A TWO-YEAR POST HIGH SCHOOL INSTRUCTIONAL PROGRAM - VOLUME III PART A.

DESCRIPTOR: *CURRICULUM; *ENVIRONMENTAL TECHNICIANS; *INSTRUCTIONAL MATERIALS; LABORATORY PROCEDURES; *LABORATORY TECHNIQUES; *POST SECONDARY EDUCATION; *REFERENCES; *SAFETY; *TEACHING GUIDES; TRAINING PROGRAMS; *WASTEWATER TREATMENT; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 24P. PRICE: \$1.00 PLUS \$.03 PER PAGE.

ABSTRACT: TO PREPARE UNDERGRADUATE STUDENTS FOR OCCUPATIONS

IN WATER AND WASTEWATER TREATMENT PLANT OPERATIONS AND MAINTENANCE. A TWO-YEAR WASTEWATER TECHNOLOGY INSTRUCTIONAL PROGRAM BASED ON PERFORMANCE OBJECTIVES HAS BEEN DEVELOPED AND IMPLEMENTED. THIS INSTRUCTOR'S GUIDE FOR THAT PROGRAM COVERS MATERIAL PRESENTED IN THE FOLLOWING UNITS: STANDARD REFERENCES; NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM; AND SAFETY.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006977

PUBLICATION DATE: JUL 76

TITLE: LABORATORY CONTROL FOR WASTEWATER FACILITIES - WASTEWATER TECHNOLOGY: A TWO-YEAR POST HIGH SCHOOL INSTRUCTIONAL PROGRAM - VOLUME III PART B.

DESCRIPTOR: *ACIDS; *BASES; *CURRICULUM; *CHLORIDES; *ENVIRONMENTAL TECHNICIANS; *GUIDES; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *LABORATORY TECHNIQUES; *POST SECONDARY EDUCATION; *PH; *TEMPERATURE; *TEACHING GUIDES; *TRAINING PROGRAMS; *WASTEWATER TREATMENT; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 59P. PRICE: \$1.00 PLUS \$.03 PER PAGE.

ABSTRACT: TO PREPARE UNDERGRADUATE STUDENTS FOR OCCUPATIONS IN WATER AND WASTEWATER TREATMENT PLANT OPERATIONS AND MAINTENANCE. A TWO-YEAR WASTEWATER TECHNOLOGY INSTRUCTIONAL PROGRAM BASED ON PERFORMANCE OBJECTIVES HAS BEEN DEVELOPED AND IMPLEMENTED. THIS INSTRUCTOR'S GUIDE FOR THAT PROGRAM COVERS MATERIAL PRESENTED IN THE FOLLOWING UNITS: ACIDITY; ALKALINITY; CHLORIDE; PH; AND TEMPERATURE.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006978

PUBLICATION DATE: JUL 76

TITLE: LABORATORY CONTROL FOR WASTEWATER FACILITIES - WASTEWATER TECHNOLOGY: A TWO-YEAR POST HIGH SCHOOL INSTRUCTIONAL PROGRAM - VOLUME III PART C.

DESCRIPTOR: *BIOCHEMICAL OXYGEN DEMAND; *CHEMISTRY; *CURRICULUM; *CHLORINE; *ENVIRONMENTAL TECHNICIANS; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *LABORATORY TECHNIQUES; *OXYGEN; *POST SECONDARY EDUCATION; *TEACHING GUIDES; *TRAINING PROGRAMS; *WASTEWATER TREATMENT; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 71P. PRICE: \$1.00 PLUS \$.03 PER PAGE.

ABSTRACT: TO PREPARE UNDERGRADUATE STUDENTS FOR OCCUPATIONS IN WATER AND WASTEWATER TREATMENT PLANT OPERATIONS AND MAINTENANCE. A TWO-YEAR WASTEWATER TECHNOLOGY INSTRUCTIONAL PROGRAM BASED ON PERFORMANCE OBJECTIVES HAS BEEN DEVELOPED

AND IMPLEMENTED. THIS INSTRUCTOR'S GUIDE FOR THAT PROGRAM COVERS MATERIAL PRESENTED IN THE FOLLOWING UNITS: BIOCHEMICAL OXYGEN DEMAND; CHEMICAL OXYGEN DEMAND; CHLORINE REQUIREMENT; DISSOLVED OXYGEN; FECAL COLIFORM; AND TOTAL RESIDUAL CHLORINE.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006979

PUBLICATION DATE: JUL 76

TITLE: LABORATORY CONTROL FOR WASTEWATER FACILITIES - WASTEWATER TECHNOLOGY: A TWO-YEAR POST HIGH SCHOOL INSTRUCTIONAL PROGRAM - VOLUME III PART D.

DESCRIPTOR: *CURRICULUM; *COLOR; *ENVIRONMENTAL TECHNICIANS; *GREASE; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *LABORATORY TECHNIQUES; *POST SECONDARY EDUCATION; *TEACHING GUIDES; *TRAINING PROGRAMS; *TURBIDITY; *WASTEWATER TREATMENT; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 44P. PRICE: \$1.00 PLUS \$.03 PER PAGE.

ABSTRACT: TO PREPARE UNDERGRADUATE STUDENTS FOR OCCUPATIONS IN WATER AND WASTEWATER TREATMENT PLANT OPERATIONS AND MAINTENANCE. A TWO-YEAR WASTEWATER TECHNOLOGY INSTRUCTIONAL PROGRAM BASED ON PERFORMANCE OBJECTIVES HAS BEEN DEVELOPED AND IMPLEMENTED. THIS INSTRUCTOR'S GUIDE FOR THAT PROGRAM COVERS MATERIAL PRESENTED IN THE FOLLOWING UNITS: COLOR; GREASE; SPECIFIC CONDUCTANCE; AND TURBIDITY.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006980

PUBLICATION DATE: JUL 76

TITLE: LABORATORY CONTROL FOR WASTEWATER FACILITIES - WASTEWATER TECHNOLOGY: A TWO-YEAR POST HIGH SCHOOL INSTRUCTIONAL PROGRAM - VOLUME III PART E.

DESCRIPTOR: *CURRICULUM; *ENVIRONMENTAL TECHNICIANS; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *LABORATORY TECHNIQUES; *NITROGEN; *PHOSPHORUS; *POST SECONDARY EDUCATION; *TEACHING GUIDES; *TEACHING PROGRAMS; *WASTEWATER

DESCRIPTIVE NOTE: 69P. PRICE: \$1.00 PLUS \$.03 PER PAGE.

ABSTRACT: TO PREPARE UNDERGRADUATE STUDENTS FOR OCCUPATIONS IN WATER AND WASTEWATER TREATMENT PLANT OPERATIONS AND MAINTENANCE. A TWO-YEAR WASTEWATER TECHNOLOGY INSTRUCTIONAL PROGRAM BASED ON PERFORMANCE OBJECTIVES HAS BEEN DEVELOPED AND IMPLEMENTED. THIS INSTRUCTOR'S GUIDE FOR THAT PROGRAM COVERS MATERIAL PRESENTED IN THE FOLLOWING UNITS: AMMONIA NITROGEN; KJELDAHL NITROGEN; NITRATE NITROGEN; NITRITE NITROGEN; ORTHOPHOSPHATE; AND TOTAL PHOSPHORUS.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, 1200
CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006981

PUBLICATION DATE: JUL 76

TITLE: LABORATORY CONTROL FOR WASTEWATER FACILITIES -
WASTEWATER TECHNOLOGY: A TWO-YEAR POST HIGH SCHOOL
INSTRUCTIONAL PROGRAM - VOLUME III PART F.

DESCRIPTOR: *CURRICULUM; *ENVIRONMENTAL TECHNICIANS;
*INSTRUCTIONAL MATERIALS; LABORATORY PROCEDURES; *LABORATORY
TECHNIQUES; *POST SECONDARY EDUCATION; *SOLIDS; *TEACHING
GUIDES; TRAINING PROGRAMS; *WASTEWATER TREATMENT; *WATER
POLLUTION CONTROL

DESCRIPTIVE NOTE: 55P. PRICE: \$1.00 PLUS \$.03 PER PAGE.

ABSTRACT: TO PREPARE UNDERGRADUATE STUDENTS FOR OCCUPATIONS
IN WATER AND WASTEWATER TREATMENT PLANT OPERATIONS AND
MAINTENANCE. A TWO-YEAR WASTEWATER TECHNOLOGY INSTRUCTIONAL
PROGRAM BASED ON PERFORMANCE OBJECTIVES HAS BEEN DEVELOPED
AND IMPLEMENTED. THIS INSTRUCTOR'S GUIDE FOR THAT PROGRAM
COVERS MATERIAL PRESENTED IN THE FOLLOWING UNITS: SETTLEABLE
MATTER; TOTAL SOLIDS; TOTAL DISSOLVED SOLIDS; TOTAL
SUSPENDED SOLIDS; AND TOTAL VOLATILE SOLIDS.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, 1200
CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006982

PUBLICATION DATE: JUL 76

TITLE: LABORATORY CONTROL FOR WASTEWATER FACILITIES -
WASTEWATER TECHNOLOGY: A TWO-YEAR POST HIGH SCHOOL
INSTRUCTIONAL PROGRAM - VOLUME III PART G.

DESCRIPTOR: *ACTIVATED SLUDGE; CURRICULUM; *ENVIRONMENTAL
TECHNICIANS; *INSTRUCTIONAL MATERIALS; LABORATORY
PROCEDURES; *LABORATORY TECHNIQUES; POLLUTION; *POST
SECONDARY EDUCATION; *SLUDGE; *TEACHING GUIDES; TRAINING
PROGRAMS; *WASTEWATER TREATMENT; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 35P. PRICE: \$1.00 PLUS \$.03 PER PAGE.

ABSTRACT: TO PREPARE UNDERGRADUATE STUDENTS FOR OCCUPATIONS
IN WATER AND WASTEWATER TREATMENT PLANT OPERATIONS AND
MAINTENANCE. A TWO-YEAR WASTEWATER TECHNOLOGY INSTRUCTIONAL
PROGRAM BASED ON PERFORMANCE OBJECTIVES HAS BEEN DEVELOPED
AND IMPLEMENTED. THIS INSTRUCTOR'S GUIDE FOR THAT PROGRAM
COVERS MATERIAL PRESENTED IN THE FOLLOWING UNITS:
CHARACTERISTICS OF ACTIVATED SLUDGE; SLUDGE CONDITIONING;
AND SLUDGE DICESTER GAS.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, 1200
CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006983

PUBLICATION DATE: DEC 79

TITLE: A COURSE ON TROUBLESHOOTING O & M PROBLEMS IN
WASTEWATER TREATMENT FACILITIES - COURSE NUMBER 179.2 -
INSTRUCTORS NOTEBOOK-OVERHEAD TRANSPARENCY MASTERS.

DESCRIPTOR: AUDIOVISUAL AIDS; *INSTRUCTIONAL MATERIALS;
MANAGEMENT; *OPERATIONS (WASTEWATER); *POST SECONDARY
EDUCATION; SANITATION; TRAINING PROGRAMS; *TROUBLESHOOTING;
*UTILITIES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 109P. PRICE: \$1.00 PLUS \$.03 PER PAGE.

ABSTRACT: THIS NOTEBOOK CONTAINS OVERHEAD TRANSPARENCY
MASTERS FOR A COURSE DEALING WITH WASTEWATER TREATMENT PLANT
OPERATIONS AND MANAGEMENT. THIS COURSE, DESCRIBED IN EW 006
469, IS DESIGNED TO ADDRESS SIGNIFICANT FACTORS CONTRIBUTING
TO POOR PLANT PERFORMANCE. THE TRAINING MATERIALS DISCUSS
THE INTERACTION BETWEEN SEVERAL POTENTIAL CAUSES OF PROBLEMS
AND STRESS THE NEED FOR COMPREHENSIVE CORRECTIVE ACTION
PROGRAMS. THE 125 TRANSPARENCY MASTERS CONTAINED IN THIS
BOOKLET COVER ALL ASPECTS OF THE COURSE.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, 1200
CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006984

PUBLICATION DATE: DEC 79

TITLE: A COURSE ON TROUBLESHOOTING O & M PROBLEMS IN
WASTEWATER TREATMENT FACILITIES - COURSE NUMBER 179.2 O
TRAINEE NOTEBOOK.

DESCRIPTOR: *INSTRUCTIONAL MATERIALS; MANAGEMENT;
*OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION;
SANITATION; *TRAINING PROGRAMS; *TROUBLESHOOTING;
*UTILITIES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 333P. PRICE: \$1.00 PLUS \$.03 PER PAGE.

ABSTRACT: THIS TRAINEE'S WORKBOOK SUMMARIZES THE KEY POINTS
INCLUDED IN THE LECTURES, DISCUSSIONS, AND PROBLEM SOLVING
SESSIONS OF A COURSE DEALING WITH WASTEWATER TREATMENT PLANT
OPERATIONS AND MANAGEMENT. THE COURSE IS DESCRIBED IN EW 006
469. CONTAINED IN THIS TRAINEE'S WORKBOOK ARE OUTLINES,
REFERENCES, PROBLEM STATEMENTS, AND NOTES FOR THE FOLLOWING
UNITS OF INSTRUCTION: ELEMENTS OF TROUBLESHOOTING; SEWER USE
CONTROL; PRE/PRIMARY TREATMENT; FIXED MEDIA SYSTEMS;
STABILIZATION PONDS; LABORATORY PRACTICES; FLOW MEASUREMENT;
CHEMICAL ADDITIONS; MANAGEMENT BEHAVIOR; ACTIVATED SLUDGE;
SOLIDS HANDLING; LAND TREATMENT; AND DISINFECTION.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, 1200
CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006983

PUBLICATION DATE: OCT 81

TITLE: ENERGY COSTS AND PORTLAND WATER SUPPLY SYSTEM.

PERSONAL AUTHOR: ELLIOTT, WILLIAM M.; HAWLEY, RANDY P.

DESCRIPTOR: *CASE STUDIES; *COSTS; *ENERGY CONSERVATION;
MAINTENANCE; *MANAGEMENT; *MUNICIPALITIES; *OPERATIONS
(WATER); *OREGON; PLANNING; *URBAN AREAS; UTILITIES; *WATER
RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 365-374P.

ABSTRACT: THE CHANGING ROLE OF ELECTRICAL ENERGY ON THE PORTLAND, OREGON, MUNICIPAL WATER SUPPLY SYSTEM IS PRESENTED. PORTLAND'S ACTIONS IN ENERGY CONSERVATION INCLUDE IMPROVED OPERATING PROCEDURES, PUMP MODIFICATIONS AND MODIFICATIONS TO THE WATER SYSTEM TO ELIMINATE PUMPING. PORTLAND IS IMPLEMENTING A "SMALL HYDROELECTRIC" PROJECT AT EXISTING WATER SUPPLY DAMS TO PRODUCE AN ADDITIONAL SOURCE OF POWER FOR THE AREA. SPECIAL PRECAUTIONS IN CONSTRUCTION AND OPERATION ARE NECESSARY TO PROTECT THE HIGH QUALITY OF THE WATER SUPPLY.

AVAILABILITY: JOURNAL OF THE WATER RESOURCES PLANNING AND MANAGEMENT DIVISION, V107 NWR2

IRIS ACCESSION NUMBER: EW006986

PUBLICATION DATE: OCT 81

TITLE: IN-HOME CONSERVATION AND WASTEWATER MANAGEMENT.

PERSONAL AUTHOR: HOPP, WALLACE J.; DARBY, WILLIAM P.

DESCRIPTOR: *CONSERVATION; *COSTS; FLOW RATES; MANAGEMENT;
*MATHEMATICAL MODELS; *MUNICIPALITIES; *WASTEWATER
TREATMENT; *WATER USE; *WATER RESOURCES

DESCRIPTIVE NOTE: 401-418P.

ABSTRACT: A MATHEMATICAL MODEL HAS BEEN DEVELOPED TO EVALUATE THE COST-EFFECTIVENESS OF HOUSEHOLD WATER CONSERVATION PRACTICES AS A COMPONENT IN MUNICIPAL WASTEWATER TREATMENT TO MEET FEDERAL SECONDARY TREATMENT REQUIREMENTS. THE ANALYSIS USES A NET PRESENT EQUIVALENT METHOD AND CONSIDERS FACTORS SUCH AS: TIME-VALUE OF MONEY, INFLATION, POPULATION GROWTH RATE, PUBLIC ACCEPTANCE OF HOUSEHOLD WATER CONSERVATION PRACTICES, RESIDENTIAL CONTRIBUTION TO THE TREATMENT PLANT INFLUENT, AND BOTH CONSTRUCTION AND OPERATIONS AND MAINTENANCE COSTS FOR MUNICIPAL WASTEWATER TREATMENT PLANTS. RESULTS SHOW THAT WHILE HOUSEHOLD WATER CONSERVATION PRACTICES DO PROVIDE A COST-EFFECTIVE COMPONENT OF MUNICIPAL WASTEWATER TREATMENT UNDER A WIDE RANGE OF REASONABLE CONDITIONS, THE MUNICIPAL CONSTRUCTION GRANTS PROGRAM MAY PROVIDE A DISINCENTIVE.

AVAILABILITY: JOURNAL OF THE WATER RESOURCES PLANNING AND MANAGEMENT DIVISION, V107 NWR2

IRIS ACCESSION NUMBER: EW006987

PUBLICATION DATE: OCT 81

TITLE: ANALYTICAL COST MODEL FOR URBAN WATER SUPPLY.

PERSONAL AUTHOR: CLARK, ROBERT M.; STEVIE, RICHARD G.

DESCRIPTOR: *COST EFFECTIVENESS; *ECONOMIC FACTORS;
PLANNING; *REGIONAL PLANNING; URBAN AREAS; *WATER
DISTRIBUTION; *WATER RESOURCES; *WATER SUPPLY; WATER
TREATMENT

DESCRIPTIVE NOTE: 437-452P.

ABSTRACT: THE LOCAL WATER UTILITY IS ORDINARILY A PURE MONOPOLY EXCEPT THAT INDUSTRIAL CUSTOMERS OF WATER MAY ESTABLISH THEIR OWN SUPPLIES. WATER SUPPLY SYSTEMS CAN BE SEPARATED INTO COMPONENTS: (1) ACQUISITION-TREATMENT; AND (2) DELIVERY. EACH OF THESE COMPONENTS HAS ITS OWN COST FUNCTION. ECONOMIES OF SCALE GAINED IN TREATMENT MAY BE LOST IN TRANSPORTATION. THE TRADEOFFS BETWEEN ECONOMIES OF SCALE IN PRODUCTION AND THE COSTS OF TRANSPORTATION HAVE SIGNIFICANCE FOR THE DEVELOPMENT OF REGIONAL WATER SUPPLY SYSTEMS. COST FUNCTIONS ARE DEVELOPED THAT ALLOW A DECISION MAKER TO EVALUATE THESE TRADEOFFS. UNDER SPECIFIC CIRCUMSTANCES THE MINIMUM AVERAGE COST POINT FOR DELIVERED WATER IS APPROXIMATELY 8 MILES.

AVAILABILITY: JOURNAL OF THE WATER RESOURCES PLANNING AND MANAGEMENT DIVISION, V107 NWR2

IRIS ACCESSION NUMBER: EW006988

PUBLICATION DATE: OCT 81

TITLE: RELIABILITY OF ALGORITHMS FOR PIPE NETWORK ANALYSIS.

PERSONAL AUTHOR: WOOD, DON J.; RAYES, A. G.

DESCRIPTOR: *ALGORITHMS; *COMPUTER APPLICATIONS;
*ENGINEERING; *FLOW RATES; *HYDRAULICS; HYDROLOGY;
*MATHEMATICAL APPLICATIONS; *NETWORK ANALYSIS; *PIPES;
*WATER DISTRIBUTION; WATER RESOURCES

DESCRIPTIVE NOTE: 1145-1161P.

ABSTRACT: ALGORITHMS FOR ANALYZING STEADY-STATE FLOW CONDITIONS IN PIPE NETWORKS ARE DESCRIBED FOR GENERAL APPLICATIONS. THE ALGORITHMS ARE BASED ON BOTH LOOP EQUATIONS EXPRESSED IN TERMS OF UNKNOWN FLOWRATES AND NODE EQUATIONS EXPRESSED IN TERMS OF UNKNOWN HEADS. FIVE METHODS, WHICH REPRESENT THOSE IN SIGNIFICANT USE TODAY, ARE INCLUDED. USING AN EXTENSIVE DATA BASE, DESCRIBING A VARIETY OF PIPE NETWORKS, THE RELIABILITIES OF THESE ALGORITHMS FOR PIPE NETWORK ANALYSIS WERE INVESTIGATED. NUMEROUS CONVERGENCE AND RELIABILITY PROBLEMS WERE DOCUMENTED. TWO METHODS BASED ON LOOP EQUATIONS HAVE SUPERIOR CONVERGENCE CHARACTERISTICS. METHODS BASED ON NODE EQUATIONS WERE LESS RELIABLE; SINGLE ADJUSTMENT METHODS MUST BE EMPLOYED WITH CAUTION.

AVAILABILITY: JOURNAL OF THE HYDRAULICS DIVISION, V107 N10

IRIS ACCESSION NUMBER: EW006959

PUBLICATION DATE: OCT 81

TITLE: JET INJECTIONS FOR OPTIMUM MIXING IN PIPE FLOW.

PERSONAL AUTHOR: FITZGERALD, STEVEN D.; HOLLEY, EDWARD R.

DESCRIPTOR: *DIFFUSION; *FLOW RATE; *HYDROLOGY; *JET INJECTIONS; *MEASUREMENTS; *PIPES (WATER); *WATER DISTRIBUTION

DESCRIPTIVE NOTE: 1179-1195P.

ABSTRACT: THE USE OF JET INJECTIONS, AS CONTRASTED TO INJECTIONS WITH NO MOMENTUM, CAN HELP TO REDUCE THE PIPE FLOW DISTANCE REQUIRED FOR THE MIXING OF INJECTED AND AMBIENT FLUIDS WITHOUT REQUIRING APPURTENANCES OR DEVICES INSIDE THE PIPE.

AVAILABILITY: JOURNAL OF THE HYDRAULICS DIVISION, V107 N10

IRIS ACCESSION NUMBER: EW006990

PUBLICATION DATE: OCT 81

TITLE: UNCERTAINTIES IN WATER DISTRIBUTION SYSTEMS.
PERSONAL AUTHOR: CLARKE, DERRICK A.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *COMPUTER PROGRAMS; *DATA COLLECTION; *MEASUREMENTS; *NETWORK ANALYSIS; *WATER SUPPLY; *WATER DISTRIBUTION; WATER RESOURCES

DESCRIPTIVE NOTE: 1263-1267P.

ABSTRACT: THE OBJECTIVE OF THIS INVESTIGATION WAS TO EXAMINE THE SENSITIVITY OF THE PRESSURE DIFFERENCE IN THE ANALYSIS OF A DISTRIBUTION NETWORK AS A RESULT OF UNCERTAINTIES IN THE PARAMETERS INVOLVED IN THE BASIC EQUATION. THE FLOW RESULTS SHOWED THAT UNCERTAINTIES IN THE INPUT DATA OF WATER DISTRIBUTION NETWORKS ARE SUBSTANTIAL, WHICH THEREFORE COULD LEAD TO MEANINGLESS RESULTS IN THE SUBSEQUENT ANALYSIS, AND THAT DATA COLLECTION PROGRAMS MUST BE VERY CAREFULLY DESIGNED.

AVAILABILITY: JOURNAL OF THE HYDRAULICS DIVISION, V107 N10

IRIS ACCESSION NUMBER: EW006995

PUBLICATION DATE: OCT 81

TITLE: DETERMINATION OF ANTIMONY (III), ANTIMONY (V), AND METHYLANTIMONY SPECIES IN NATURAL WATERS BY ATOMIC ABSORPTION SPECTROMETRY WITH HYDRIDE GENERATION.

PERSONAL AUTHOR: ANDREA, MEINRAT O.; AND OTHERS
DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ANTIMONY; AQUATIC ENVIRONMENT; ATOMIC ABSORPTION SPECTROMETRY; *CHEMISTRY; *LABORATORY TECHNIQUES; *WATER QUALITY

DESCRIPTIVE NOTE: 1766-1771P.

ABSTRACT: THE ANTIMONY SPECIES ANTIMONY(III), ANTIMONY(V), METHYLSTIBONIC ACID, AND DIMETHYLSTIBINIC ACID ARE REDUCED IN AQUEOUS MATRIX BY SODIUM BOROHYDRIDE TO STIBINE, METHYLSTIBINE, AND DIMETHYLSTIBINE. SB(III) AND SB(V) ARE REDUCED TOGETHER TO STIBINE UNDER HIGHLY ACIDIC CONDITIONS IN A SOLUTION CONTAINING IODIDE. SB(III) IS SELECTIVELY REDUCED AT NEAR-NEUTRAL PH, WHERE NO REDUCTION OF SB(V) TAKES PLACE. SB(V) IS THEN OBTAINED BY SUBTRACTION. THE METHYLANTIMONY ACIDS ARE REDUCED AT ACID PH WITHOUT ADDITION OF IODIDE. THE STIBINES ARE COLLECTED ON A LIQUID-NITROGEN-COOLED TRAP AND SEPARATED CHROMATOGRAPHICALLY AFTER HEATING THE TRAP. THEY ELUTE INTO A QUARTZ CUUVETTE BURNER OR GRAPHITE FURNACE MOUNTED IN THE BEAM OF AN ATOMIC ABSORPTION SPECTROPHOTOMETER; THE RESULTING ABSORBANCE SIGNALS ARE RECORDED AS CHROMATOGRAPHIC PEAKS. THE ABSOLUTE DETECTION LIMIT IS 30-60 PG OF SB, DEPENDING ON SPECIES AND OPERATING CONDITIONS; THE CONCENTRATION LIMIT OF DETECTION IS 0.3-0.6 NG L⁻¹ FOR A 100-ML SAMPLE. ANALYTICAL RESULTS FROM RIVER AND ESTUARINE WATERS ARE PRESENTED. SB(III), SB(V), METHYLSTIBONIC ACID, AND DIMETHYLSTIBINIC ACID WERE FOUND IN NATURAL WATERS.

AVAILABILITY: ANALYTICAL CHEMISTRY, V53 N12

IRIS ACCESSION NUMBER: EW007010

PUBLICATION DATE: OCT 81

TITLE: INDUSTRIAL PRETREATMENT NEEDS TO BE OVERHAULED AT THE NATIONAL LEVEL.

DESCRIPTOR: *INDUSTRIAL PRETREATMENT; *NATIONAL PROGRAMS; *POLLUTION CONTROL; *POSITION PAPERS; *PRETREATMENT; *STANDARDS; *WASTEWATER TREATMENT; *WATER POLLUTION CONTROL FEDERATION

DESCRIPTIVE NOTE: 1452-1456P.

ABSTRACT: IN THIS POSITION PAPER, THE WATER POLLUTION CONTROL FEDERATION REVIEWS THE CURRENT STATE OF NATIONAL PRETREATMENT POLICY AND RECOMMENDS THAT FIVE STEPS BE TAKEN TO IMPROVE THE PROGRAM: (1) DISTINCTION BETWEEN DIRECT AND INDIRECT INDUSTRIAL DISCHARGERS MUST BE REORGANIZED, (2) PRETREATMENT REQUIREMENTS FOR OLD AND NEW INDIRECT DISCHARGERS SHOULD BE THE SAME, (3) THE CONCEPT OF INDICATOR POLLUTANTS MUST BE ELIMINATED, (4) THE REMOVAL CREDIT CONCEPT MUST BE ELIMINATED AS A NATIONAL REQUIREMENT, (5) THE FEDERAL GOVERNMENT CAN DO MORE TO ENCOURAGE STATE AND LOCAL AUTHORITIES TO DEVELOP STRONG LOCAL PROGRAMS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N10

IRIS ACCESSION NUMBER: EW007011

PUBLICATION DATE: OCT 81

TITLE: DETERMINING MAXIMUM INFLUENT CONCENTRATIONS OF PRIORITY POLLUTANTS FOR TREATMENT PLANTS.

PERSONAL AUTHOR: ANTHONY, RICHARD M.; BREIMHURST, LAWRENCE H.

DESCRIPTOR: *HEALTH EFFECTS; *INFLUENTS; *OPERATIONS (WASTEWATER); *POLLUTANTS; *PRETREATMENT; *PRIORITY POLLUTANTS; *REGULATIONS; SAFETY; SLUDGE; TOXICITY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1437-1468P.

ABSTRACT: THIS PAPER OUTLINES THE METHODS USED TO RECOMMEND MAXIMUM INFLUENT CONCENTRATIONS OF PRIORITY POLLUTANTS FOR SEVERAL TREATMENT PLANTS USING BIOLOGICAL AND PHYSICAL-CHEMICAL PROCESSES. BASED ON THESE INFLUENT LIMITATIONS, MAXIMUM INFLUENT CONCENTRATIONS FOR PRIORITY POLLUTANTS CAN BE RECOMMENDED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N10

IRIS ACCESSION NUMBER: EW007012

PUBLICATION DATE: OCT 81

TITLE: COUPLED TRICKLING FILTER-ROTATING BIOLOGICAL CONTACTOR NITRIFICATION PROCESS.

PERSONAL AUTHOR: MARSH, DEBORAH; AND OTHERS

DESCRIPTOR: AMMONIA; *BIOLOGICAL TREATMENT; *DESIGN; EFFLUENTS; *FACILITIES; FILTERS; *NITRIFICATION; *OPERATIONS (WASTEWATER); *ROTATING BIOLOGICAL CONTACTORS; *TRICKLING FILTERS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1469-1480P.

ABSTRACT: THE BOULDER, COLO., 75TH STREET WASTEWATER TREATMENT PLANT IS A 0.66-M³/S (15.0-MGD) SECONDARY FACILITY USING TRICKLING FILTERS. ITS EFFLUENT IS DISCHARGED INTO BOULDER CREEK; THUS, TREATMENT BEYOND THE SECONDARY LEVEL SOON WILL BE REQUIRED TO UPGRADE AND IMPROVE THE WATER QUALITY IN BOULDER CREEK. THE EFFLUENT AMMONIA CONCENTRATION VARIES--DIRECTLY, WITH THE INFLUENT AMMONIA AND THE INFLUENT 5-DAY BIOCHEMICAL OXYGEN DEMAND (BOD₅) CONCENTRATIONS; INVERSELY, WITH WASTEWATER TEMPERATURE AND MEDIA SURFACE AREA. THE ONLY PARAMETERS FOUND TO AFFECT THE EFFLUENT AMMONIA CONCENTRATION WERE THE RATIO OF THE SURGE HYDRAULIC LOADING TO THE STEADY-STATE OR DESIGN HYDRAULIC LOADING, AND THE RATIO OF THE INFLUENT AMMONIA CONCENTRATION DURING THE SURGE TO THE STEADY-STATE OR DESIGN INFLUENT AMMONIA CONCENTRATION.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N10

IRIS ACCESSION NUMBER: EW007013

PUBLICATION DATE: OCT 81

TITLE: EVALUATION OF AUTOMATIC SUSPENDED SOLIDS SAMPLING PROCEDURES.

PERSONAL AUTHOR: REED, GREGORY D.

DESCRIPTOR: *AUTOMATION; *PERFORMANCE EVALUATION; *RECLAMATION; *SAMPLING; *SUSPENDED SOLIDS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1481-1491P.

ABSTRACT: AT A SMALL RAW DOMESTIC WASTEWATER TREATMENT PLANT, THE INCONSISTENCY OF NONFILTERABLE SOLIDS DATA RESULTING FROM AUTOMATIC SAMPLING EQUIPMENT WAS EVALUATED USING DIFFERENT FIELD SAMPLING TECHNIQUES. THE RESULTS POINT OUT THE NEED FOR PROPER EVALUATION OF THE WASTEWATER CHARACTERISTICS PRIOR TO CHOOSING THE INTAKE TUBE PLACEMENT.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N10

IRIS ACCESSION NUMBER: EW007014

PUBLICATION DATE: OCT 81

TITLE: VIRAL TRANSPORT TO GROUND WATER AT A WASTEWATER LAND APPLICATION SITE.

PERSONAL AUTHOR: MOORE, BARBARA E.; AND OTHERS

DESCRIPTOR: BACTERIA; *DESIGN; *GROUNDWATER; *HEALTH EFFECTS; *IRRIGATION; *LAND APPLICATION; PUBLIC HEALTH; *SOIL VIRUSES; SOIL SCIENCE; *WASTEWATER TREATMENT; *WASTE DISPOSAL; *WASTEWATER; WATER QUALITY

DESCRIPTIVE NOTE: 1492-1502P.

ABSTRACT: A 3-YEAR STUDY TO EVALUATE THE SURVIVAL AND TRANSPORT OF INDIGENOUS VIRUSES THROUGH SOIL WAS CONDUCTED AT AN OPERATING WASTEWATER IRRIGATION SITE. THE PROJECT FOCUSED SPECIFICALLY ON HUMAN ENTEROVIRUSES AND CONCOMITANT ANALYSES FOR BACTERIAL INDICATORS, COLIPHAGES, AND SELECTED CHEMICAL PARAMETERS. THE ISOLATION OF ENTEROVIRUSES IN WATER FROM LYSIMETERS, BUT NOT FROM WELLS, SUGGESTS THAT DEPTH TO GROUND WATER, AS WELL AS THE SPECIFIC NATURE OF THE SOILS, SHOULD BE CRITICAL FACTORS IN THE SELECTION OF WASTEWATER IRRIGATION SITES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N10

IRIS ACCESSION NUMBER: EW007015

PUBLICATION DATE: OCT 81

TITLE: BIODEGRADABILITY STUDIES WITH ORGANIC PRIORITY

POLLUTANT COMPOUNDS.

PERSONAL AUTHOR: TABAK, HENRY H.; AND OTHERS

DESCRIPTOR: *BIOASSAYS; *BIODEGRADABILITY; *EPA CONSENT DECREE; *MICROBIOLOGY; *ORGANIC COMPOUNDS; *PRIORITY POLLUTANTS; *WASTEWATER TREATMENT; WATER QUALITY

DESCRIPTIVE NOTE: 1503-1518P.

ABSTRACT: THE AIM OF THIS PROJECT WAS TO DETERMINE THE BIODEGRADABILITY OF ALL THE ORGANIC COMPOUNDS LISTED ON THE EPA CONSENT DECREE. DATA ON THE EXTENT OF BIODEGRADABILITY AND RATE OF ACCLIMATION FOR 96 COMPOUNDS IS PRESENTED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N10

IRIS ACCESSION NUMBER: EW007016

PUBLICATION DATE: OCT 81

TITLE: ANAEROBIC ACTIVATED CARBON FILTER FOR THE TREATMENT OF PHENOL-BEARING WASTEWATER.

PERSONAL AUTHOR: KHAN, KHALIQUE A.

DESCRIPTOR: *ACTIVATED CARBON; *ANAEROBIC PROCESSES; *CARBON FILTERS; CHEMICAL OXYGEN DEMAND; COST EFFECTIVENESS; *FILTERS; *INDUSTRIAL WASTES; *OPERATIONS (WASTEWATER); *PHENOLS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1519-1532P.

ABSTRACT: AN INNOVATIVE AND ENERGY-EFFICIENT PROCESS CONSISTING OF AN ANAEROBIC FIXED FILM BIOREACTOR PACKED WITH GRANULAR ACTIVATED CARBON WAS USED FOR THE TREATMENT OF SYNTHETIC SUBSTRATES BEARING PHENOL, GLUCOSE, AND MIXTURES OF PHENOL AND GLUCOSE. STEADY-STATE REMOVAL EFFICIENCIES OF CHEMICAL OXYGEN DEMAND AND TOTAL ORGANIC CARBON CONSISTENTLY EXCEEDED 90%, WHEREAS PHENOL REMOVAL EFFICIENCIES IN EXCESS OF 99% WERE OBTAINED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N10

IRIS ACCESSION NUMBER: EW007017

PUBLICATION DATE: OCT 81

TITLE: INFLUENCE OF DISSOLVED OXYGEN ON ACTIVATED SLUDGE VIABILITY.

PERSONAL AUTHOR: WILLIAMSON, KENNETH J.; NELSON, PETER O.

DESCRIPTOR: *ACTIVATED SLUDGE; *ATP; *DISSOLVED OXYGEN; *MODELING; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *SLUDGE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1533-1540P.

ABSTRACT: SIGNIFICANT INCREASES IN ATP-VIABILITY WERE OBSERVED IN BENCH-SCALE ACTIVATED SLUDGE REACTORS WITH INCREASING DO CONCENTRATIONS UP TO 15 MG/L. SEVERAL THEORIES THAT EXPLAIN THE MEASURED DIFFERENCES IN VIABILITY ARE DISCUSSED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N10

IRIS ACCESSION NUMBER: EW007018

PUBLICATION DATE: OCT 81

TITLE: CHARACTERIZATION OF MASS TRANSFER PARAMETERS FOR ADSORBER MODELING AND DESIGN.

PERSONAL AUTHOR: LIU, KUANG-TSAN; WEBER, WALTER J., JR.

DESCRIPTOR: *ADSORPTION; *ADSORBERS; *DESIGN; EQUIPMENT; *MASS TRANSFER; MATHEMATICS; *MODELING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1541-1550P.

ABSTRACT: A METHOD USING REGRESSION ANALYSIS HAS BEEN DEVELOPED FOR DETERMINING THE EXTERNAL FILM TRANSFER COEFFICIENT FROM THE INITIAL PORTION OF A COLUMN BREAKTHROUGH PROFILE, AND THE INTERNAL SURFACE DIFFUSION COEFFICIENT FROM THE ENTIRE BREAKTHROUGH PROFILE. THE METHOD MAY BE USED FOR UNKNOWN ADSORBATES THAT ARE TYPICALLY ENCOUNTERED IN WASTEWATER APPLICATIONS AND THAT HAVE FAVORABLE ISOTHERMS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N10

IRIS ACCESSION NUMBER: EW007019

PUBLICATION DATE: OCT 81

TITLE: PVC COVER CAUSES LEACHATE RETREAT.

PERSONAL AUTHOR: ENRICH, GROVER H.

DESCRIPTOR: CASE STUDIES; GROUNDWATER; *LANDFILLS; *LEACHATE; *POLLUTION CONTROL; *PVC; *SEALS; *WASTE DISPOSAL; *WATER QUALITY

DESCRIPTIVE NOTE: 61-62P.

ABSTRACT: THIS ARTICLE PRESENTS A CASE STUDY IN WHICH AN UNPLANNED LANDFILL THREATENED WATER QUALITY AND REQUIRED A PVC SEAL TO STOP SPREADING POLLUTANTS. LEACHATE HAD ALREADY CONTAMINATED NEARBY PONDS AND WAS HEADED TOWARD A DRINKING WATER RESERVOIR WHEN A 20-MIL LAYER OF POLYVINYL CHLORIDE APPLIED OVER THE SOURCE LANDFILL CUT LIQUIDS PRODUCTION ENOUGH TO MAKE THE POLLUTANT PLUME RECEDE.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V96 N10

IRIS ACCESSION NUMBER: EW007020

PUBLICATION DATE: FEB 81

TITLE: U. S. DIRECTORY OF ENVIRONMENTAL SOURCES (4TH EDITION), NATIONAL FOCAL POINT OF THE UNITED NATIONS ENVIRONMENT PROGRAM/INTERNATIONAL REFERRAL SYSTEM FOR SOURCES OF ENVIRONMENTAL INFORMATION (INFOTERRA).

DESCRIPTOR: *CONSULTANTS; *DIRECTORIES; ECOLOGY; *ENVIRONMENT; *ENVIRONMENTAL MANAGEMENT; LAND USE; MANAGEMENT; *NATURAL RESOURCES; ORGANIZATIONS (GROUPS); PLANNING; *UNITED NATIONS ENVIRONMENT PROGRAM; *UNITED STATES

DESCRIPTIVE NOTE: 999P. PBB1-186876

ABSTRACT: THE UNITED NATIONS ENVIRONMENT PROGRAM (UNEP) ESTABLISHED THE INTERNATIONAL REFERRAL SYSTEM FOR SOURCES OF ENVIRONMENTAL INFORMATION (INFOTERRA) AS A REFERRAL SERVICE DESIGNED TO LINK THOSE WHO NEED ENVIRONMENTAL INFORMATION WITH THOSE WHO HAVE THE DESIRED INFORMATION. THIS DIRECTORY INCLUDES ENVIRONMENTAL INFORMATION SOURCES REGISTERED WITH THE U.S. CENTER. IT INCLUDES 1,495 SOURCES FROM AMONG SUCH GROUPS AS: BUSINESS AND INDUSTRY, CONSULTANTS, ENGINEERING FIRMS, FEDERAL AGENCIES, INFORMATION CENTERS, LABORATORIES, SOCIETIES AND ASSOCIATIONS, STATE AND LOCAL GOVERNMENTS, AND UNIVERSITIES. TO PROVIDE EFFICIENT ACCESS TO SOURCES, THE DIRECTORY IS DIVIDED INTO FOUR PARTS: SUBJECT ATTRIBUTE LISTING, DIRECTORY OF SOURCES, ALPHABETICAL LISTING OF REGISTERED SOURCES, AND GEOGRAPHICAL LISTING BY STATE AND CITY.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007021

PUBLICATION DATE: 81

TITLE: ABSTRACTS OF TECHNICAL PAPERS - 54TH ANNUAL CONFERENCE - WATER POLLUTION CONTROL FEDERATION, 1981.

DESCRIPTOR: *ABSTRACTS; *BIBLIOGRAPHIES; *CONFERENCE PRECEEDINGS; DESIGN; EQUIPMENT; FACILITIES; HAZARDOUS MATERIALS; INDUSTRIAL WASTES; LAND USE; MANAGEMENT; *OPERATIONS (WASTEWATER); *POLLUTION CONTROL; *RESEARCH REPORTS; SLUDGE; TOXIC SUBSTANCES; WASTE DISPOSAL; *WASTEWATER TREATMENT; *WATER QUALITY; *WATER TREATMENT

ABSTRACT: THIS PUBLICATION CONTAINS ABSTRACTS OF TECHNICAL PAPERS PRESENTED AT THE 54TH ANNUAL CONFERENCE OF THE WATER POLLUTION CONTROL FEDERATION. IT CONTAINS 100 PAPERS ON VARIOUS TOPICS INCLUDING PLANT OPERATIONS, TREATMENT PROCESSES, INDUSTRIAL WASTES, INTERGOVERNMENTAL ISSUES, MANAGEMENT, TESTING, WATER QUALITY STANDARDS, SLUDGE, WATER REUSE, PRETREATMENT, COLLECTION SYSTEMS, LAND APPLICATION, DISINFECTION, PLANT DESIGN, AND HAZARDOUS WASTES.

AVAILABILITY: WATER POLLUTION CONTROL FEDERATION, 2626 PENNSYLVANIA AVENUE, N.W., WASHINGTON, DC 20037

IRIS ACCESSION NUMBER: EW007023

PUBLICATION DATE: JUL 76

TITLE: TOOLS FOR LOCAL ACTION - ALTERNATIVES FOR MUNICIPAL ENVIRONMENTAL PROTECTION IN NEW JERSEY.

DESCRIPTOR: *ECOLOGY; *ENVIRONMENT; *ENVIRONMENTAL LEGISLATION; *INSTRUCTIONAL MATERIALS; *LAND USE; LEGAL ASPECTS; *LOCAL GOVERNMENTS; *MUNICIPALITIES; *NEW JERSEY; *ORDINANCES; *POLLUTION CONTROL; *POSTSECONDARY EDUCATION; REGULATIONS; STANDARDS; STATUTES; STREAMS; *WATERSHEDS; ZONING

ABSTRACT: THIS HANDBOOK IS DESIGNED TO ACQUAINT THE READER WITH VARIOUS SOURCES OF AIR AND WATER POLLUTION, THEIR IMPACT, AND SOLUTIONS APPLICABLE AT THE LOCAL LEVEL. SPECIAL CONSIDERATION IS GIVEN TO LOCAL LAND USE CONTROL MEASURES FOR ENVIRONMENTALLY SENSITIVE AREAS SUCH AS STREAM CORRIDORS, WETLANDS, AND STEEP SLOPES. ALTHOUGH THE PRIMARY EMPHASIS OF THIS BOOK IS ON VARIOUS TYPES OF LOCAL LEGISLATION, CERTAIN STATE REGULATORY PROGRAMS ARE ALSO DISCUSSED. SECTIONS INCLUDE: CONTROL OF ENVIRONMENTAL IMPACTS; LAND USE CONTROLS FOR CRITICAL AREAS; STATUTES AFFECTING LAND USE; ENVIRONMENTAL STATUTES AND REGULATIONS; AND DRAFTING ORDINANCES.

AVAILABILITY: ASSOCIATION OF NEW JERSEY ENVIRONMENTAL COMMISSIONS, MENDHAM, NEW JERSEY 07945

IRIS ACCESSION NUMBER: EW007026

PUBLICATION DATE: 81

TITLE: 1981 ANNUAL BOOK OF ASTM STANDARDS - PART 31 - WATER.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; CHEMISTRY; EQUIPMENT; *GUIDES; INORGANIC COMPOUNDS; *LABORATORY TECHNIQUES; ORGANIC COMPOUNDS; *QUALITY CONTROL; REAGENTS; RADIOACTIVITY; SALINITY; *SAMPLING; *STANDARDS; WATER TREATMENT; *WATER; *WATER QUALITY

DESCRIPTIVE NOTE: 1516P. PRICE: \$53.00

ABSTRACT: THIS BOOK PROVIDES ESSENTIAL INFORMATION FOR TESTING QUALITY CONTROL, PRODUCTION, SPECIFYING, AND DESIGNING. CONTENTS INCLUDE: (1) DEFINITIONS, SPECIFICATIONS, REAGENTS, AND REPORTING RESULTS; (2) SAMPLING AND FLOW MEASUREMENT; (3) GENERAL PROPERTIES OF WATER; (4) INORGANIC CONSTITUENTS; (5) ORGANIC CONSTITUENTS; (6) MEASUREMENT OF RADIOACTIVITY, SPECIFIC RADIONUCLIDES, HEAVY WATER; (7) SALINE AND BRACKISH WATERS, SEA WATER, AND BRINES; (8) MICROBIOLOGICAL EXAMINATION; (9) WATER-FORMED DEPOSITS; AND (10) WATER TREATMENT MATERIALS.

AVAILABILITY: AMERICAN SOCIETY FOR TESTING AND MATERIALS, 1916 RACE STREET, PHILADELPHIA, PA 19103

IRIS ACCESSION NUMBER: EW007027

PUBLICATION DATE: 81

TITLE: PRETREATMENT OF INDUSTRIAL WASTES.

DESCRIPTOR: COST EFFECTIVENESS; FLOW EQUALIZATION;
*INDUSTRIAL WASTES; INDUSTRIES; *MUNICIPALITIES; *OPERATIONS
(WASTEWATER); POLLUTANTS; *PRETREATMENT; *REGULATIONS;
*TECHNOLOGY; *WASTEWATER PRETREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 115P. PRICE: \$7.00 TO MEMBERS AND
\$14.00 TO NON-MEMBERS. MOP FD-3AC81

ABSTRACT: THIS BOOK FOCUSES ON END OF PIPE TREATMENT
SYSTEMS PRECEDING MUNICIPAL WASTEWATER PLANTS. IT IS
INTENDED FOR BOTH MUNICIPAL AND INDUSTRIAL WORKERS INVOLVED
WITH PRETREATMENT PROCESSES. THE MANUAL IS ORGANIZED
ACCORDING TO WASTE CHARACTERISTICS. EACH CHAPTER DESCRIBES
THE EFFECTS OF A SPECIFIC POLLUTANT ON THE OPERATION AND
EFFICIENCY OF PUBLICLY OWNED TREATMENT PLANTS. ALTERNATIVE
PRETREATMENT POSSIBILITIES, CONTROL AND TREATMENT OF
DIFFERENT POLLUTANTS IN INDUSTRIAL WASTE STREAMS, AND FLOW
EQUALIZATION IS DISCUSSED.

AVAILABILITY: WATER POLLUTION CONTROL FEDERATION, 2626
PENNSYLVANIA AVE., N.W., WASHINGTON, DC 20037

IRIS ACCESSION NUMBER: EW007029

PUBLICATION DATE: 78

TITLE: MANAGING THE WATER WE DRINK.

DESCRIPTOR: *AUDIOVISUAL AIDS; DISEASES; *DRINKING WATER;
*INSTRUCTIONAL MATERIALS; *MANAGEMENT; POST SECONDARY
EDUCATION; *PUBLIC HEALTH; REGULATIONS; *SAFE DRINKING WATER
ACT; *WATER SUPPLY; *WATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 65 35-MM COLOR SLIDES, ACCOMPANIED BY A
15 MINUTE AUDIOTAPE CASSETTE.

ABSTRACT: THIS 15 MINUTE INTRODUCTORY SLIDE AND TAPE SHOW
WAS DEVELOPED AS PART OF AN INFORMATIONAL PROGRAM FOR THE
SAFE DRINKING WATER ACT (PL 93-523). THE PRESENTATION IS
INTENDED FOR THE USE OF PUBLIC OFFICIALS, MANAGERS, AND
OPERATORS. IT COVERS WATERBORNE DISEASE OUTBREAKS AND CAUSES
IN THE UNITED STATES, THE FIVE BASIC PROVISIONS OF THE SDWA,
AND SPECIFICALLY THE PROVISION DEALING WITH PRIMARY
REGULATIONS FOR PUBLIC WATER SYSTEMS. MAXIMUM CONTAINMENT
LEVELS ARE ALSO COVERED.

AVAILABILITY: AWWA TECHNICAL LIBRARY, 6666 W. QUINCY
AVENUE, DENVER, CO 80235

IRIS ACCESSION NUMBER: EW007030

PUBLICATION DATE: 78

TITLE: VAULT SAFETY.

DESCRIPTOR: *AUDIOVISUAL AIDS; CONFINED AREAS; *HAZARDS;
INDUSTRIAL SAFETY; *INSTRUCTIONAL MATERIALS; *OCCUPATIONAL
SAFETY; *POST SECONDARY EDUCATION; *SAFETY; *TOXIC GASES;
*VAULTS

DESCRIPTIVE NOTE: COLOR, 3/4-INCH VIDEOCASSETTE, 12
MINUTES.

ABSTRACT: THIS 12 MINUTE VIDEOTAPE REVIEWS THE SAFETY
PROCEDURES TO BE TAKEN BEFORE ANYONE ENTERS A VAULT, METER
PIT, OR OTHER CONFINED SPACE WHERE THERE MAY BE A LACK OF
OXYGEN OR WHERE TOXIC GASES MAY BE PRESENT.

AVAILABILITY: AWWA TECHNICAL LIBRARY, 6666 W. QUINCY
AVENUE, DENVER, CO 80235

IRIS ACCESSION NUMBER: EW007031

PUBLICATION DATE: 79

TITLE: SAMPLING AND ANALYSIS OF TRIHALOMETHANES.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *AUDIOVISUAL AIDS;
*INSTRUCTIONAL MATERIALS; *LABORATORY TECHNIQUES; *POST
SECONDARY EDUCATION; *SAMPLING TECHNIQUES; *TRICHALOMETHANES;
*WATER QUALITY

DESCRIPTIVE NOTE: COLOR 3/4 INCH VIDEOCASSETTE ONLY, 40
MINUTES.

ABSTRACT: THIS VIDEOCASSETTE COVERS SAMPLING AND ANALYSIS
OF TRIHALOMETHANES. IT CONTAINS A FOUR-PART PRESENTATION ON
WATER SAMPLING, PREPARATION OF STANDARDS, THE LIQUID-LIQUID
EXTRACTION METHOD, AND THE PURGE-AND-TRAP METHOD.

AVAILABILITY: AWWA TECHNICAL LIBRARY, 6666 W. QUINCY AVE.,
DENVER, CO 80235

IRIS ACCESSION NUMBER: EW007032

PUBLICATION DATE: MAY 81

TITLE: STATE OF THE STATES: WATER RESOURCES PLANNING AND
MANAGEMENT GROUNDWATER SUPPLEMENT.

DESCRIPTOR: *GROUNDWATER; *MANAGEMENT; *PLANNING; *PROGRAM
DESCRIPTIONS; *RESEARCH REPORTS; STATE PROGRAMS; STATUTES;
*WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 97P. PDB1-239485

ABSTRACT: THIS REPORT IS A GROUNDWATER SUPPLEMENT TO THE
UNITED STATES WATER RESOURCES COUNCIL'S REPORT OF APRIL 1980
ENTITLED, "STATE OF THE STATES: WATER RESOURCES PLANNING AND
MANAGEMENT." IT ADDRESSES GROUNDWATER MANAGEMENT AND
PROTECTION PROGRAMS IN EACH OF THE 50 STATES AND FIVE
TERRITORIES. THE INFORMATION PRESENTED IS BASED UPON
CONTACTS WITH STATE AGENCY STAFF RESPONSIBLE FOR
ADMINISTERING WATER RESOURCES AND WATER QUALITY PROGRAMS,
AND A SURVEY OF RELEVANT STATE GROUNDWATER STATUTES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007033

PUBLICATION DATE: AUG 81

TITLE: ECOLOGY OF THE MARINE ENVIRONMENT. APRIL, 1978-
APRIL, 1980. (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *BIBLIOGRAPHIES; *AQUATIC ENVIRONMENTS;
*ECOLOGY; ESTUARIES; ENVIRONMENT; *MARINE BIOLOGY; *MARINE
ENVIRONMENT; MICROORGANISMS; *OCEANOGRAPHY; POLLUTION;
*RESEARCH

DESCRIPTIVE NOTE: 165P. PB81-808164

ABSTRACT: THESE SELECTED ABSTRACTS OF RESEARCH REPORTS
COVER SALT WATER ECOLOGY OF SHELLFISH, FISHES, AQUATIC
PLANTS, AQUATIC ANIMALS, AND AQUATIC MICROORGANISMS. ESTUARY
STUDIES ARE INCLUDED AS ARE POLLUTION EFFECTS, EXCEPT FOR
REPORTS DEALING WITH PESTICIDES AND OIL POLLUTION. THIS
UPDATED BIBLIOGRAPHY CONTAINS 158 CITATIONS, NONE OF WHICH
ARE NEW ENTRIES TO THE PREVIOUS EDITION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007034

PUBLICATION DATE: AUG 81

TITLE: ECOLOGY OF THE MARINE ENVIRONMENT. MAY, 1979-JULY,
1980. (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *ABSTRACTS; *AQUATIC ENVIRONMENTS; *ECOLOGY;
ESTUARIES; *MARINE BIOLOGY; *MARINE ENVIRONMENT;
MICROORGANISMS; *OCEANOGRAPHY; POLLUTION; *RESEARCH

DESCRIPTIVE NOTE: 236P. PB81-808172

ABSTRACT: THE SELECTED ABSTRACTS OF RESEARCH REPORTS COVER
SALT WATER ECOLOGY OF SHELLFISH, FISHES, AQUATIC PLANTS,
AQUATIC ANIMALS, AND AQUATIC MICROORGANISMS. ESTUARY STUDIES
ARE INCLUDED AS ARE POLLUTION EFFECTS, EXCEPT FOR REPORTS
DEALING WITH PESTICIDES AND OIL POLLUTION. THIS UPDATED
BIBLIOGRAPHY CONTAINS 229 CITATIONS, ALL OF WHICH ARE NEW
ENTRIES TO THE PREVIOUS EDITION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007035

PUBLICATION DATE: JUN 81

TITLE: AERIAL PHOTOGRAPHY: ITS USE IN THE STUDY OF COASTAL
EROSION AND POLLUTION. JANUARY, 1974-JUNE, 1981.

(CITATIONS FROM OCEANIC ABSTRACTS).

DESCRIPTOR: *AERIAL PHOTOGRAPHY; *BIBLIOGRAPHIES; *COASTAL
ZONES; *EROSION; *MARINE POLLUTION; *OCEANOGRAPHY;
*POLLUTION; REMOTE SENSING; *RESEARCH REPORTS

DESCRIPTIVE NOTE: 81P. PB81-870818

ABSTRACT: THIS RETROSPECTIVE BIBLIOGRAPHY CONTAINS
CITATIONS CONCERNING AERIAL PHOTOGRAPHY AND ITS USE AS A
MEANS TO STUDY COASTAL SHORELINE PROBLEMS SUCH AS EROSION
AND POLLUTION, AND TO SURVEY COASTAL AND LAND AREAS.
CONTAINS 82 CITATIONS. IT IS FULLY INDEXED AND INCLUDES A
TITLE LIST.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007036

PUBLICATION DATE: JUL 81

TITLE: WASTE TREATMENT AND DISPOSAL IN THE FISHING AND
SHELLFISH INDUSTRIES. JANUARY, 1974-JULY, 1981. (CITATIONS
FROM OCEANIC ABSTRACTS).

DESCRIPTOR: AERATION; *AQUATIC ENVIRONMENTS;
*BIBLIOGRAPHIES; COAGULANTS; ECONOMIC IMPACTS; ELECTROLYSIS;
*FISHING INDUSTRY; *INDUSTRY; *MARINE POLLUTION; *MARINE
BIOLOGY; *POLLUTION; *RESEARCH REPORTS; *SHELLFISH INDUSTRY;
*WASTE DISPOSAL; *WASTE TREATMENT
DESCRIPTIVE NOTE: 68P. PB81-871477

ABSTRACT: CITATIONS INCLUDED RELATE TO PROBLEMS ASSOCIATED
WITH WASTE TREATMENT IN THE FISHING AND SHELLFISH
INDUSTRIES. THE USE OF COAGULANTS, AERATION, AND
ELECTROLYSIS ARE INCLUDED. INCLUDED ARE 67 CITATIONS AND A
TITLE LIST.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007037

PUBLICATION DATE: AUG 81

TITLE: AERATION OF SEWAGE LAGOONS, RESERVOIRS, AND STREAMS.

DESCRIPTOR: *AERATION; AGRICULTURAL WASTES; BIOLOGICAL
TREATMENT; *BIBLIOGRAPHIES; *LAGOONS; MUNICIPALITIES;
*RESEARCH REPORTS; RESERVOIRS; *SEWAGE; STREAMS; *WASTEWATER
TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 325P. PB81-807794

ABSTRACT: THESE FEDERALLY-FUNDED REPORTS HAVE BEEN DIVIDED
INTO TWO SECTIONS. THE FIRST COVERS AERATION LAGOONS USED IN
BIOLOGICAL WASTE TREATMENT, INCLUDING MUNICIPAL SEWAGE
TREATMENT AS WELL AS TREATMENT OF AGRICULTURAL WASTES. THE

SECOND SECTION CITES STUDIES ON THE AERATION OF STREAMS AND RESERVOIRS TO IMPROVE THEIR WATER QUALITY. THIS UPDATED BIBLIOGRAPHY CONTAINS 297 CITATIONS, 19 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007038

PUBLICATION DATE: AUG 81

TITLE: AERATION OF SEWAGE LAGOONS, RESERVOIRS, AND STREAMS. 1970-JULY, 1981. (CITATIONS FROM THE ENGINEERING INDEX DATA BASE.)

DESCRIPTOR: *AERATION; *AGRICULTURAL WASTES; *BIBLIOGRAPHIES; *INDUSTRIAL WASTES; *LAGOONS; *MUNICIPAL WASTES; *RESEARCH REPORTS; *RESERVOIRS; SEWAGE; *STREAMS; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 274P. PBB1-807802

ABSTRACT: THE WORLDWIDE REPORTS CITED IN THIS BIBLIOGRAPHY COVER BOTH SEWAGE AERATION LAGOONS AS WELL AS THE MECHANICAL AERATION OF STREAMS AND RESERVOIRS. THE SECTION ON AERATION LAGOONS COVERS THEIR DESIGN AND PERFORMANCE IN TREATING BOTH MUNICIPAL, INDUSTRIAL, AND AGRICULTURAL WASTES. THE SECOND SECTION COVERS REPORTS ON THE USE OF MECHANICAL AERATORS TO IMPROVE THE WATER QUALITY OF LAKES, RIVERS, AND RESERVOIRS. THIS UPDATED BIBLIOGRAPHY CONTAINS 258 CITATIONS, 28 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007039

PUBLICATION DATE: MAR 81

TITLE: BIBLIOGRAPHY OF WATER CONSERVATION.

DESCRIPTOR: *BIBLIOGRAPHIES; *CONSERVATION; *PLANNING; *WATER CONSERVATION; *WATER RESOURCES; *WATER USE

DESCRIPTIVE NOTE: 46P. PBB1-233108

ABSTRACT: THIS DOCUMENT DEVELOPED BY THE WATER RESOURCES COUNCIL GIVES A DETAILED BIBLIOGRAPHY OF PUBLICATIONS DEALING WITH WATER USE, WATER CONSERVATION AND WATER CONSERVATION PLANNING.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007040

PUBLICATION DATE: JUL 81

TITLE: OIL SLICK MOVEMENT. 1964-JUNE, 1981. (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *BIBLIOGRAPHIES; COASTS; *CURRENTS (OCEAN); *MARINE ENVIRONMENT; *OCEANOGRAPHY; *OIL SLICKS; *POLLUTION; *RESEARCH REPORTS

DESCRIPTIVE NOTE: 50P. PBB1-807570

ABSTRACT: THIS BIBLIOGRAPHY CITES REPORTS COVERING THE MOVEMENT OF OIL SLICKS IN THE OCEAN. SOME OF THE TOPICS INCLUDE OCEAN CURRENT INTERACTIONS, MODELING OF DRIFT, OCEAN WAVE DISPERSION, AND OCEAN CURRENT STUDIES OFF OF VARIOUS COASTS. THIS UPDATED BIBLIOGRAPHY CONTAINS 43 CITATIONS, 5 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007041

PUBLICATION DATE: JUL 81

TITLE: GROUND WATER POLLUTION: SALINE GROUND WATER. 1964-MAY, 1981. (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: AQUIFERS; *BIBLIOGRAPHIES; *GROUNDWATER; HYDROLOGY; IRRIGATION; *POLLUTION; *RESEARCH REPORTS; *SALINE WATER; *SALINITY; SOIL STUDIES; *WATER RESOURCES; *WATER TREATMENT; *WATER QUALITY; *WATER SUPPLY

DESCRIPTIVE NOTE: 369P. PBB1-807380

ABSTRACT: THESE ABSTRACTS COVER RESEARCH ON TOPICS DEALING WITH SALINE GROUND WATER - IRRIGATION RETURN FLOW, SOIL STUDIES, HYDROLOGY, AQUIFERS, WATER QUALITY, SALT WATER INTRUSION, AND EFFECTS UPON WATER SUPPLIES. THIS UPDATED BIBLIOGRAPHY CONTAINS 261 CITATIONS, 40 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007042

PUBLICATION DATE: JUL 81

TITLE: GROUND WATER POLLUTION: POLLUTION FROM IRRIGATION AND FERTILIZATION. 1977-MAY, 1981. (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *BIBLIOGRAPHIES; *FERTILIZERS; *GROUNDWATER; *IRRIGATION; PLANNING; *POLLUTION; *RESEARCH; SEWAGE; SLUDGE; SOLID WASTE; *WATER POLLUTION CONTROL; *WATER QUALITY

DESCRIPTIVE NOTE: 169P. PB81-807372

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS ABSTRACTS OF RESEARCH COVERING ASPECTS OF GROUND WATER POLLUTION FROM IRRIGATION AND FERTILIZATION. THE REPORTS INCLUDE TOPICS DEALING WITH THE POLLUTION FROM SEWAGE AND WASTE WATER IRRIGATION, LAND SPREADING OF SLUDGES AND SOLID WASTES, NITRATE AND PHOSPHATE ACCUMULATION IN SOILS, POLLUTION CONTROL AND ABATEMENT PLANNING, THE USE OF TILE DRAINS IN GROUND WATER POLLUTION CONTROL, AND GROUND WATER RECHARGE STUDIES. THIS UPDATED BIBLIOGRAPHY CONTAINS 161 CITATIONS, 43 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007043

PUBLICATION DATE: DEC 80

TITLE: ENVIRONMENTAL QUALITY - THE ELEVENTH ANNUAL REPORT OF THE COUNCIL ON ENVIRONMENTAL QUALITY.

DESCRIPTOR: AIR QUALITY; *ECOLOGY; ECONOMICS; ENERGY; ENVIRONMENT; *ENVIRONMENTAL QUALITY; *EVALUATION; HEALTH EFFECTS; *LAND USE; MANAGEMENT; *NATURAL RESOURCES; *POLLUTION; *RESEARCH; *TOXIC SUBSTANCES; *WATER QUALITY

DESCRIPTIVE NOTE: 497P.

ABSTRACT: THIS BOOK PRESENTS A COMPREHENSIVE ANALYSIS OF VARIOUS VARIABLES RELATING TO THE QUALITY OF THE ENVIRONMENT OF THE UNITED STATES. DETAILED CHAPTERS INCLUDE: THE GLOBAL ENVIRONMENT, ECOLOGY AND LIVING RESOURCES - BIOLOGICAL DIVERSITY, WATER QUALITY, AIR QUALITY, TOXIC SUBSTANCES AND ENVIRONMENTAL HEALTH, ENERGY, NATURAL RESOURCES, HUMAN SETTLEMENTS AND LAND USE, NEPA, AND ECONOMICS.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW007044

PUBLICATION DATE: 81

TITLE: THE ENVIRONMENT: CHINESE AND AMERICAN VIEWS.

PERSONAL AUTHOR: MA, LAURENCE J. C.; NOBLE, ALLEN G.

DESCRIPTOR: AGRICULTURE; *CHINA; *ENVIRONMENT; GEOGRAPHY; GLOBAL ECOLOGY; *HUMAN ECOLOGY; MANAGEMENT; MONITORING; *NATURAL RESOURCES; *PLANNING; SYMPOSIA; *UNITED STATES; *URBAN ENVIRONMENT; *WATER RESOURCES; *WATER QUALITY

DESCRIPTIVE NOTE: 397P.

ABSTRACT: THIS TEXT PRESENTS AMERICAN AND CHINESE GEOGRAPHERS' PERSPECTIVES ON VARIOUS FACTORS RELATING TO THE PHYSICAL AND HUMAN ENVIRONMENT. IN 1977 A GROUP OF AMERICAN GEOGRAPHERS, SPONSORED BY THE OHIO ACADEMY OF SCIENCES,

VISITED CHINA AND IN 1978 A TEN-MEMBER DELEGATION OF CHINESE GEOGRAPHERS VISITED VARIOUS AMERICAN STATES TO LEARN ABOUT AMERICAN PLANNING IN THEORY AND PRACTICE. IN OCTOBER 1978 A SYMPOSIUM WAS HELD IN RACINE, WISCONSIN. THIS VOLUME CONTAINS THE MATERIAL PRESENTED AT THIS SYMPOSIUM. SECTIONS INCLUDE: AGRICULTURAL DEVELOPMENT, HUMAN SETTLEMENT, AND THE ENVIRONMENT; THE IMPACT OF WATER ON ENVIRONMENT; URBAN DEVELOPMENT AND THE ENVIRONMENT; ENVIRONMENTAL MONITORING; AND ENVIRONMENTAL EDUCATION AND GLOBAL PROBLEMS.

AVAILABILITY: METHUEN & CO. LTD., 11 NEW FETTER LANE, LONDON EC4P 4EE OR METHUEN, INC., 733 THIRD AVENUE, NEW YORK, NY 10017

IRIS ACCESSION NUMBER: EW007045

PUBLICATION DATE: 81

TITLE: HANDBOOK OF NONPOINT POLLUTION - SOURCES AND MANAGEMENT.

PERSONAL AUTHOR: NOVONTNY, VLADIMIR; CHESTERS, GORDON

DESCRIPTOR: EROSION; GROUNDWATER; *HYDROLOGY; *INSTRUCTIONAL MATERIALS; LAND USE; *MANAGEMENT; MODELING; *NONPOINT POLLUTION; PLANNING; *POLLUTION CONTROL; *POST SECONDARY EDUCATION; SURFACE WATER; *WATER POLLUTION CONTROL; *WATER QUALITY

DESCRIPTIVE NOTE: 550P. PRICE: \$24.50

ABSTRACT: THIS BOOK IS INTENDED FOR ENGINEERS, SCIENTISTS, AND GOVERNMENT OFFICIALS INVOLVED IN POLLUTION ABATEMENT PROGRAMS. THE NONPOINT POLLUTION PROBLEM IS BROAD AND THE INFORMATION CONTAINED IN THIS HANDBOOK ALSO WILL BE OF USE TO AGRICULTURAL ENGINEERS, PLANNERS AND DEVELOPERS, AND STUDENTS. THE AUTHORS HAVE MADE AN EFFORT TO PRESENT THE MATERIAL IN A TEXTBOOK FORM, SUPPORTED BY NUMEROUS EXAMPLES AND WITHOUT COMPLICATED MATHEMATICS. CHAPTERS INCLUDE: SURFACE WATER PROBLEMS, HYDROLOGICAL CONSIDERATIONS, POLLUTION FROM THE ATMOSPHERE, EROSION AND SEDIMENT YIELDS, INTERACTION OF POLLUTANTS WITH SOILS, GROUNDWATER POLLUTION, POLLUTION FROM IMPERVIOUS URBAN AREAS, NONPOINT POLLUTION SIMULATION MODELS, LAND USE AND NONPOINT POLLUTION, MANAGEMENT PRACTICES OF NONPOINT POLLUTION CONTROL, AND PLANNING FOR NONPOINT POLLUTION CONTROL.

AVAILABILITY: INTERNATIONAL THOMSON EDUCATIONAL PUBLISHING, INC., VAN NOSTRAND REINHOLD DIV., 7625 EMPIRE DR., FLORENCE, KY 41042

IRIS ACCESSION NUMBER: EW007046

PUBLICATION DATE: 79

TITLE: ODOR CONTROL FOR WASTEWATER FACILITIES - MANUAL OF PRACTICE NO. 22.

DESCRIPTOR: CONTROL TECHNIQUES; *DESIGN; *FACILITIES; *MANUALS; *ODOR CONTROL; *ODORS; *OPERATIONS (WASTEWATER);

REGULATIONS; *SLUDGE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 80P. PRICE: \$8.00

ABSTRACT: THIS PUBLICATION IS AN ODOR CONTROL MANUAL OF PRACTICE FOR THE PRIMARY USE OF WASTEWATER FACILITY DESIGN ENGINEERS. IT ADDRESSES THE CONTROL OF ODOR EMISSIONS FROM WASTEWATER, SLUDGE, AND WASTEWATER FACILITIES. CHAPTERS INCLUDE: ODOR CHARACTERISTICS; ODOR MEASUREMENT; SELECTION OF ODOR CONTROL TECHNIQUES; ODOR PREVENTION AND CONTROL IN FACILITY DESIGN; AND, GOVERNMENT REGULATIONS.

AVAILABILITY: WATER POLLUTION CONTROL FEDERATION, 2626 PENNSYLVANIA AVENUE, N.W., WASHINGTON, DC 20037

IRIS ACCESSION NUMBER: EW007047

PUBLICATION DATE: 77

TITLE: HISTORY OF THE WATER POLLUTION CONTROL FEDERATION 1928-1977.

DESCRIPTOR: *HISTORY; *ORGANIZATIONS; *RESEARCH; *TRAINING; *WASTEWATER TREATMENT; *WATER POLLUTION CONTROL FEDERATION; *WATER RESOURCES

DESCRIPTIVE NOTE: 321P. PRICE: \$16.00

ABSTRACT: THIS BOOK PRESENTS THE STORIES BEHIND THE ORGANIZATION AND GROWTH OF THE WATER POLLUTION CONTROL FEDERATION. CHAPTERS INCLUDE: GENESIS; EMERSON/MOSES ERA--1928-1940; THE COMING OF AGE--1941-1954; HEADQUARTERS MOVED TO WASHINGTON--1955-1969; ROUNDING OUT A HALF CENTURY--1969-1977; FEDERATION PROGRAMS; AND, CHARTER ASSOCIATION HISTORIES. SPECIFIC FOCUS IS ON IMPORTANT INDIVIDUAL MEMBERS.

AVAILABILITY: WATER POLLUTION CONTROL FEDERATION, 2626 PENNSYLVANIA AVENUE, N.W., WASHINGTON, DC 20037

IRIS ACCESSION NUMBER: EW007049

PUBLICATION DATE: MAR 81

TITLE: 1980 SALARIES OF WASTEWATER PERSONNEL - SPECIAL REPORT.

DESCRIPTOR: *EMPLOYMENT OPPORTUNITIES; *EMPLOYMENT SKILLS; MAINTENANCE WORKERS; MANAGEMENT; *OPERATORS; *PERSONNEL; *SALARIES; *SURVEYS; *WAGES; *WASTEWATER PERSONNEL; WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 68P.

ABSTRACT: COMPREHENSIVE DATA ON SALARIES PAID BY WATER POLLUTION CONTROL FACILITIES IS PRESENTED. THE REPORT RECOMMENDS THAT THE WATER POLLUTION CONTROL FEDERATION INITIATE EFFORTS TO ENCOURAGE OWNERS OF WASTEWATER COLLECTION AND TREATMENT SYSTEMS TO PAY SALARIES COMMENSURATE WITH THE EDUCATION, TRAINING AND SKILLS

REQUIRED TO MANAGE, OPERATE, AND MAINTAIN WATER POLLUTION CONTROL FACILITIES, AND THEREBY ENCOURAGE RECRUITING AND RETENTION OF QUALIFIED PERSONNEL INTO OPERATION AND MAINTENANCE OCCUPATIONS.

AVAILABILITY: WATER POLLUTION CONTROL FEDERATION, 2626 PENNSYLVANIA AVENUE, N.W., WASHINGTON, DC 20037

IRIS ACCESSION NUMBER: EW007050

PUBLICATION DATE: JAN 78

TITLE: HYPOCHLORITE GENERATION AT A WATER POLLUTION CONTROL PLANT.

PERSONAL AUTHOR: DOAN, ROLAND, JR.; HAINES, ANDREW S.

DESCRIPTOR: *CASE STUDIES; *CHLORINATION; COST EFFECTIVENESS; *DESIGN; *DISINFECTION; FACILITIES; *HYPOCHLORITE GENERATION; *OPERATIONS (WASTEWATER); POLLUTION CONTROL; *WASTEWATER TREATMENT

ABSTRACT: THIS ARTICLE PROVIDES A CASE HISTORY OF A WATER POLLUTION CONTROL FACILITY THAT WILL USE ONSITE GENERATION OF SODIUM HYPOCHLORITE. THE PLANT WILL HANDLE A 24-MGD AVERAGE FLOW AND 60-MGD PEAK FLOW TO SERVE AN ESTIMATED 1990 POPULATION OF 240,000. ALL CHLORINATION NEEDS WILL BE MET ECONOMICALLY AND WITHOUT THE HAZARDS OF CHLORINE GAS OR THE TRANSPORTATION OF HYPOCHLORITE SOLUTION.

AVAILABILITY: PUBLIC WORKS JOURNAL

IRIS ACCESSION NUMBER: EW007051

PUBLICATION DATE: SUM 81

TITLE: CARCINOGENIC RISK ASSESSMENT: A GUIDE TO THE LITERATURE.

PERSONAL AUTHOR: KREWSKI, DANIEL; BROWN, CHARLES

DESCRIPTOR: BIOASSAYS; *CANCER; *CARCINOGENS *LITERATURE REVIEWS; REGULATIONS; *RESEARCH REVIEWS; RISK; *RISK ASSESSMENT; *STATISTICS; TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 84-104P.

ABSTRACT: A GUIDE TO THE STATISTICAL LITERATURE ON CARCINOGENIC RISK ASSESSMENT USING ANIMAL MODELS IS PRESENTED IN THIS ARTICLE. INCLUDED ARE SECTIONS ON THE GENERAL PRINCIPLES OF CARCINOGEN BIOASSAYS, STATISTICAL ANALYSIS OF SCREENING BIOASSAYS, QUANTITATIVE RISK ASSESSMENT, AND REGULATORY CONSIDERATIONS.

AVAILABILITY: TOXIC SUBSTANCES JOURNAL, V3 N1

IRIS ACCESSION NUMBER: EW007032

PUBLICATION DATE: FEB 81

TITLE: COMPUTERS AND EDUCATION: THE GENIE IS OUT OF THE BOTTLE.

PERSONAL AUTHOR: LAUTSCH, JOHN C.

DESCRIPTOR: AUTOINSTRUCTIONAL AIDS; COMPUTER ASSISTED INSTRUCTION; *COMPUTER ORIENTED PROGRAMS; *COMPUTERS; EDUCATIONAL MEDIA; *ELECTRONIC EQUIPMENT; ELEMENTARY SECONDARY EDUCATION; HIGHER EDUCATION; *INSTRUCTIONAL INNOVATION; POST SECONDARY EDUCATION; *TEACHING METHODS; TELECOMMUNICATIONS; TELECOURSES

DESCRIPTIVE NOTE: 34-35, 39P.

ABSTRACT: PRESENTS AN OVERVIEW OF COMPUTER USE IN EDUCATION AND OTHER REALMS. CONCLUDES THAT THE TRUE COMPUTER REVOLUTION IN EDUCATION MAY NOT BE THE COMPUTER ASSISTED INSTRUCTION BUT RATHER THE COMBINING OF COMPUTERS WITH OTHER ELECTRONIC DEVICES FOR THE ADVENT OF WIDESPREAD DECENTRALIZED EDUCATION.

AVAILABILITY: TECHNOLOGICAL HORIZONS IN EDUCATION; V8 N2

IRIS ACCESSION NUMBER: EW007033

PUBLICATION DATE: FEB 81

TITLE: CBI--A BLUEPRINT FOR SUCCESSFUL IMPLEMENTATION.

PERSONAL AUTHOR: MITCHELL, MAURICE

DESCRIPTOR: COMMUNITY COLLEGES; COMPUTER ASSISTED INSTRUCTION; *COMPUTER ORIENTED PROGRAMS; COST EFFECTIVENESS; EDUCATIONAL NEEDS; *EDUCATIONAL PLANNING; HIGHER EDUCATION; *INSTRUCTIONAL DEVELOPMENT; INSTRUCTIONAL INNOVATION; POST SECONDARY EDUCATION; *SYSTEMS APPROACH; SYSTEMS DEVELOPMENT

DESCRIPTIVE NOTE: 36-39P.

ABSTRACT: DES MOINES AREA COMMUNITY COLLEGE COOPERATED WITH OTHER IOWA COMMUNITY COLLEGES AND IBM IN DESIGNING AND IMPLEMENTING A COMPUTER BASED EDUCATION SYSTEM. OUTLINES THE SYSTEMS APPROACH USED INCLUDING OBJECTIVES, NEEDS ANALYSIS, IMPLEMENTATION PLAN, COST EFFECTIVENESS, AND RECOMMENDATIONS. ILLUSTRATIONS AND GRAPHS INCLUDED.

AVAILABILITY: TECHNOLOGICAL HORIZONS IN EDUCATION; V8 N2

IRIS ACCESSION NUMBER: EW007034

PUBLICATION DATE: FEB 81

TITLE: A SYSTEMATIC APPROACH TO THE DESIGN OF COMPUTER ASSISTED INSTRUCTION MATERIALS.

PERSONAL AUTHOR: HARTMAN, JANET

DESCRIPTOR: *COMPUTER ASSISTED INSTRUCTION; *COMPUTER ORIENTED PROGRAMS; COURSE OBJECTIVES; EDUCATIONAL PLANNING; ELEMENTARY SECONDARY EDUCATION; *INSTRUCTIONAL DEVELOPMENT; *INSTRUCTIONAL MATERIALS; POST SECONDARY EDUCATION; SYSTEMS APPROACH; *TEACHING METHODS

DESCRIPTIVE NOTE: 43-45P.

ABSTRACT: DESCRIBES SIX BASIC STEPS IN DESIGNING THE INSTRUCTIONAL CONTENT OF COMPUTER ASSISTED INSTRUCTIONAL MATERIALS.

AVAILABILITY: TECHNOLOGICAL HORIZONS IN EDUCATION; V8 N2

IRIS ACCESSION NUMBER: EW007035

PUBLICATION DATE: FEB 81

TITLE: COMPUTER CONFERENCING: EXPLODING THE CLASSROOM WALLS.

PERSONAL AUTHOR: SCHROEDER, RAYMOND E.

DESCRIPTOR: *COMPUTER ORIENTED PROGRAMS; *EDUCATIONAL MEDIA; EDUCATIONAL TECHNOLOGY; HIGHER EDUCATION; *INSTRUCTIONAL INNOVATION; *MICROCOMPUTERS; POST SECONDARY EDUCATION; TEACHING METHODS; *TELECONFERENCING; PLATO

DESCRIPTIVE NOTE: 46P.

ABSTRACT: REPORTS THAT BY USING SEVERAL FEATURES OF THE PLATO COMPUTER AIDED INSTRUCTION SYSTEM, STUDENTS IN ILLINOIS AND HAWAII WHO WERE TAKING SIMILAR COURSES WERE ABLE TO COMMUNICATE WITH EACH OTHER AND CONDUCT TOPICAL DISCUSSIONS THROUGH COMPUTER CONFERENCING. THIS TECHNIQUE HAS A VARIETY OF APPLICATIONS AND IS AVAILABLE AT DIFFERENT SITES.

AVAILABILITY: TECHNOLOGICAL HORIZONS IN EDUCATION; V8 N2

IRIS ACCESSION NUMBER: EW007036

PUBLICATION DATE: FEB 81

TITLE: THE HUMAN LEARNING SYSTEM.

PERSONAL AUTHOR: NORMAN, EDWARD C.; AND OTHERS

DESCRIPTOR: ADOLESCENTS; *ADULT DEVELOPMENT; *ADULT LEARNING; ADULTS; CHILDREN; EARLY CHILDHOOD EDUCATION; ELEMENTARY SECONDARY EDUCATION; HIGHER EDUCATION; *INDIVIDUAL DEVELOPMENT; *LEARNING; LEARNING PROCESSES; *LEARNING THEORIES; POST SECONDARY EDUCATION; PERFORMANCE PATHFINDER PLAN

DESCRIPTIVE NOTE: 47-48P.

ABSTRACT: SUGGESTS THAT LEARNING IS A PROCESS UNDERGOING

CHANCE FROM INFANCY TO ADULTHOOD AND THAT THE MORE CONSCIOUSLY AWARE THE LEARNER IS OF THE PROCESS, THE MORE THE LEARNER CAN BE IN CONTROL. PRESENTS THE PERFORMANCE PATHFINDER PLAN AS A MODEL OF APPROPRIATE ADULT LEARNING.

AVAILABILITY: TECHNOLOGICAL HORIZONS IN EDUCATION; VB N2

IRIS ACCESSION NUMBER: EW007057

PUBLICATION DATE: FEB 81

TITLE: INFORMATION RETRIEVAL IN EDUCATION.

PERSONAL AUTHOR: BORK, ALFRED

DESCRIPTOR: AUTOINSTRUCTIONAL AIDS; *COMPUTER MANAGED INSTRUCTION; *COMPUTER ORIENTED PROGRAMS; *COMPUTER STORAGE DEVICES; *DATABASES; HIGHER EDUCATION; INFORMATION PROCESSING; *INFORMATION RETRIEVAL; INFORMATION STORAGE; POST SECONDARY EDUCATION

DESCRIPTIVE NOTE: 49-51P.

ABSTRACT: REVIEWS HARDWARE (MICROFILM, VIDEODISCS, COMPUTERS) WHICH CAN PROCESS AND RETRIEVE LARGE AMOUNTS OF EDUCATIONAL INFORMATION. IDENTIFIES WAYS IN WHICH COMPUTER-BASED TECHNIQUES CAN BE USED FOR COURSE MANAGEMENT, DIRECT LEARNING, AND RESEARCH.

AVAILABILITY: TECHNOLOGICAL HORIZONS IN EDUCATION; VB N2

IRIS ACCESSION NUMBER: EW007063

PUBLICATION DATE: JAN 81

TITLE: EDUCATION, COMPUTERS AND MICRO-ELECTRONICS.

PERSONAL AUTHOR: LEWIS, R.

DESCRIPTOR: *COMPUTER ASSISTED INSTRUCTION; *COMPUTER ORIENTED PROGRAMS; COMPUTER SCIENCE EDUCATION; *EDUCATIONAL CHANGE; *EDUCATIONAL DEVELOPMENT; ELEMENTARY SECONDARY EDUCATION; HIGHER EDUCATION; *MICROCOMPUTERS; POST SECONDARY EDUCATION; TECHNICAL EDUCATION; VOCATIONAL EDUCATION; COMPUTER LITERACY

DESCRIPTIVE NOTE: 47-49, 59P.

ABSTRACT: TRACES GENERAL EDUCATIONAL CHANGES OVER THE LAST 20 YEARS. SUMMARIZES PAST AND PRESENT USES OF COMPUTERS IN EDUCATION, AND IDENTIFIES THE IMPACT MICRO-ELECTRONICS WILL HAVE ON PRESENT AND FUTURE EDUCATION. DISCUSSES VOCATIONAL TRAINING, AVAILABILITY OF INEXPENSIVE EDUCATIONAL RESOURCES, TEACHING METHODS, AND TEACHER EDUCATION.

AVAILABILITY: TECHNOLOGICAL HORIZONS IN EDUCATION; VB N1

IRIS ACCESSION NUMBER: EW007074

PUBLICATION DATE: NOV 81

TITLE: NEW CONCEPTS IN FILTRATION PLANT DESIGN AND REHABILITATION.

PERSONAL AUTHOR: BOWERS, EUCENE; BEARD, JAMES D., II

DESCRIPTOR: *DESIGN; EQUIPMENT; *FACILITIES; *FILTRATION; *MANAGEMENT; *OPERATIONS (WATER); TURBIDITY; WATER RESOURCES; *WATER TREATMENT

DESCRIPTIVE NOTE: 457-463P.

ABSTRACT: AT TREATMENT PLANTS OPERATED BY THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA, DIRECT FILTRATION REMOVES 98 PERCENT OF THE SOLIDS LOAD IF THE SOURCE WATER DOES NOT EXCEED FIVE TURBIDITY UNITS. STORAGE RESERVOIRS ALLOW TIME TO SETTLE MACRO-SIZED PARTICULATES BEFORE FILTRATION AND ALSO SERVE AS BUFFERS FROM MAJOR FLUCTUATIONS IN SOURCE WATER QUALITY. A COMPUTERIZED PROCESS CONTROL SYSTEM, INTERFACED WITH ADVANCED, SOLID STATE, WATER QUALITY MEASURING DEVICES, AUTOMATICALLY CONTROLS WATER TREATMENT PROCESSES.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N9

IRIS ACCESSION NUMBER: EW007075

PUBLICATION DATE: NOV 81

TITLE: UPGRADING TO INCREASE TREATMENT CAPACITY.

PERSONAL AUTHOR: BRODEUR, TIMOTHY P.

DESCRIPTOR: *COST EFFECTIVENESS; *DESIGN; EQUIPMENT; *FACILITIES; MANAGEMENT; *OPERATIONS (WATER); *PLANT PERFORMANCE; *PLANT CAPACITY; WATER RESOURCES; *WATER TREATMENT

DESCRIPTIVE NOTE: 464-471P.

ABSTRACT: WHEN MANATEE COUNTY (FLA.) NEEDED TO INCREASE THE CAPACITY OF ITS WATER TREATMENT PLANT FROM 102 ML/D (27 MGD) TO 189 ML/D (50 MGD) TO MEET PEAK DEMANDS, PLANT AND LABORATORY STUDIES WERE UNDERTAKEN TO DETERMINE THE PARAMETERS AFFECTING PLANT PERFORMANCE. SLUDGE RECYCLING POSSIBILITIES WERE ALSO CONSIDERED. THESE STUDIES RESULTED IN OBTAINING APPROVALS FOR MODIFICATIONS TO THE PLANT THAT ALMOST DOUBLED LOADS ON THE TREATMENT BASINS. CAPITAL COST SAVINGS WERE ESTIMATED AT \$2 MILLION.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N9

IRIS ACCESSION NUMBER: EW007076

PUBLICATION DATE: NOV 81

TITLE: OPTIMIZING COAGULATION WITH PILOT FILTERS AND ZETA POTENTIAL.

PERSONAL AUTHOR: NEUMAN, WILLIAM E.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *COAGULATION; EQUIPMENT; *FACILITIES; *FILTRATION; *MANAGEMENT; *MONITORING; *OPERATIONS (WATER); PILOT FILTERS; WATER RESOURCES; *WATER TREATMENT; *ZETA POTENTIAL

DESCRIPTIVE NOTE: 472-473P.

ABSTRACT: TREATING WATER FROM CONSTANTLY CHANGING SOURCES SUCH AS THE MISSISSIPPI, OHIO, AND MISSOURI RIVERS REQUIRES GOOD COAGULATION CONTROL THAT OPERATING PERSONNEL CAN UNDERSTAND AND USE EFFICIENTLY. TWO PRACTICAL MONITORING TECHNIQUES -- ZETA POTENTIAL AND IN-LINE PILOT FILTERS -- HAVE BEEN EFFECTIVE OVER THE YEARS IN PROVIDING DATA ON WHICH TO BASE DECISIONS IN CONTROLLING COAGULATION.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N9

IRIS ACCESSION NUMBER: EW007077

PUBLICATION DATE: NOV 81

TITLE: UPGRADING WATER TREATMENT PLANTS IN SAN DIEGO.

PERSONAL AUTHOR: KING, RICHARD W.; CROSSLEY, EUGENE I.

DESCRIPTOR: *CALIFORNIA; *DESIGN; EQUIPMENT; *FACILITIES; FILTRATION; MANAGEMENT; *MODIFICATIONS; *OPERATIONS (WATER); *PLANT CAPACITY; *SAN DIEGO; WATER RESOURCES; *WATER TREATMENT

DESCRIPTIVE NOTE: 476-477P.

ABSTRACT: NINE YEARS AGO SAN DIEGO'S THREE WATER TREATMENT PLANTS COULD NOT MEET EITHER PEAK-DAY OR PEAK-MONTH DEMANDS. FURTHERMORE, A CHANGE IN THE RAW WATER SUPPLY WAS NECESSARY. WITHOUT CHANGING THE PHYSICAL DIMENSIONS OF THE PLANTS, MODIFICATIONS WERE COMPLETED TWO YEARS AGO AND SUCCEEDED IN PRODUCING A 30 PERCENT HIGHER FLOW OF A QUALITY TREATED WATER.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N9

IRIS ACCESSION NUMBER: EW007078

PUBLICATION DATE: NOV 81

TITLE: EVALUATING A PLANT'S POTENTIAL FOR UPGRADING.

PERSONAL AUTHOR: HUCKABEE, ADRIAN J.; GARRETT, JACK T., JR.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; EQUIPMENT; *EVALUATION; *FACILITIES; *GUIDELINES; *METHODOLOGY; MODIFICATIONS; OPERATIONS (WATER); *UPGRADING; WATER RESOURCES; *WATER TREATMENT

DESCRIPTIVE NOTE: 478-483P.

ABSTRACT: A METHOD IS OUTLINED FOR ANALYZING EXISTING WATER TREATMENT PLANTS IF RENOVATION IS CONTEMPLATED. CONSULTING ENGINEERS AND WATER UTILITIES PROFESSIONALS WILL FIND PRAGMATIC SUGGESTIONS ON HOW TO EVALUATE EACH STEP IN THE TREATMENT PROCESS FOR OVERALL UPGRADING.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N9

IRIS ACCESSION NUMBER: EW007079

PUBLICATION DATE: JUN 81

TITLE: SO YOU WANT TO KNOW YOUR LEADERSHIP STYLE?

PERSONAL AUTHOR: HERSEY, PAUL; BLANCHARD, KENNETH H.

DESCRIPTOR: *BEHAVIORAL STUDIES; COMMUNICATION SKILLS; *EMPLOYEE RELATIONS; *EVALUATION; *INVENTORIES; JOB SKILLS; *LEADERSHIP; LEADERSHIP STYLE; *MANAGEMENT; *TESTS

DESCRIPTIVE NOTE: 34-54P.

ABSTRACT: THIS ARTICLE PRESENTS A SELF-ADMINISTERED TEST DESIGNED TO MEASURE HOW A MANAGER OR LEADER BEHAVES IN A SITUATIONAL LEADERSHIP FRAMEWORK. THE INSTRUMENT, ENTITLED, THE LEADER ADAPTABILITY AND STYLE INVENTORY (LASI), CONSISTS OF 12 ITEMS THAT MEASURE SELF-PERCEPTION OF THREE ASPECTS OF LEADER BEHAVIOR: (1) STYLE; (2) STYLE RANGE; AND (3) STYLE ADAPTABILITY.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL, V35 N6

IRIS ACCESSION NUMBER: EW007083

PUBLICATION DATE: 81

TITLE: MANAGING SOFTWARE DEVELOPMENT AND MAINTENANCE.

PERSONAL AUTHOR: MCCLURE, CARMA L.

DESCRIPTOR: CASE STUDIES; *COST EFFECTIVENESS; *COMPUTER APPLICATIONS; *COMPUTER SOFTWARE; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *MANAGEMENT; *POST SECONDARY EDUCATION

DESCRIPTIVE NOTE: 214P. PRICE: \$19.65

ABSTRACT: THIS TEXT PRESENTS PRACTICAL PROJECT MANAGEMENT METHODS THAT FOCUS ON THE MANAGEMENT AND MAINTENANCE ISSUES OF THE SOFTWARE LIFE CYCLE. CHAPTERS INCLUDE: SOFTWARE: STATE-OF-THE-ART; SOFTWARE DEVELOPMENT CASE HISTORIES: A FAILURE AND A SUCCESS; DEVELOPING SOFTWARE WITH MAINTENANCE IN MIND; ORGANIZING THE SOFTWARE DEVELOPMENT TEAM;

CONTROLLING SOFTWARE DEVELOPMENT; APPLYING SOFTWARE ENGINEERING TO SOFTWARE MAINTENANCE; CONTROLLING SOFTWARE MAINTENANCE; AND, EVALUATING THE SOFTWARE LIFE CYCLE.

AVAILABILITY: HAYDEN PUBLISHING COMPANY, INC., COMPUTER DECISIONS, 50 ESSEX STREET, ROCHELLE PARK, NJ 07662

IRIS ACCESSION NUMBER: EW007084

PUBLICATION DATE: SEP 81

TITLE: TRAINING NEEDS AND DELIVERY SYSTEMS FOR SECTION 205(G) PROGRAMS - VOLUME I.

DESCRIPTOR: CLEAN WATER ACT; *DELIVERY SYSTEMS; EVALUATION; MANAGEMENT; *MANPOWER TRAINING; MUNICIPALITIES; *NEEDS ASSESSMENT; *RECOMMENDATIONS; STAFFING; *STATE PROGRAMS; *TRAINING; *205(G) PROGRAMS; WASTEWATER TREATMENT; *WATER RESOURCES

DESCRIPTIVE NOTE: 100P.

ABSTRACT: THE OBJECTIVE OF THIS REPORT IS TO PRESENT THE RESULT OF A STUDY TO DETERMINE WORKFORCE STAFFING AND TRAINING NEEDS OF STATES AND TERRITORIES THAT HAVE RECEIVED DELEGATIONS OR THAT WILL RECEIVE DELEGATIONS FOR FISCAL YEARS 1981 THROUGH 1985, AND TO OFFER RECOMMENDATIONS FOR ESTABLISHING AND IMPLEMENTING A COST-EFFECTIVE TRAINING DELIVERY SYSTEM TO RESPOND TO THESE IDENTIFIED NEEDS. CHAPTERS INCLUDE: CONCLUSIONS; RECOMMENDATIONS; STUDY PROCEDURES FOLLOWED; RESULTS OF THE SURVEY; ANALYSIS OF DELIVERY SYSTEM ALTERNATIVES; AND, MANAGEMENT OF THE TRAINING DELIVERY SYSTEM.

AVAILABILITY: HOMITZ, ALLEN AND ASSOCIATES, 235 W. MACARTHUR BLVD., SUITE 540, OAKLAND, CA 94611

IRIS ACCESSION NUMBER: EW007083

PUBLICATION DATE: SEP 81

TITLE: TRAINING NEEDS AND DELIVERY SYSTEMS FOR SECTION 205(G) PROGRAMS - VOLUME II.

DESCRIPTOR: CLEAN WATER ACT; *DELIVERY SYSTEMS; EVALUATION; MANAGEMENT; *MANPOWER TRAINING; MUNICIPALITIES; *NEEDS ASSESSMENT; *RECOMMENDATIONS; STAFFING; *STATE PROGRAMS; *TRAINING; *205(G) PROGRAMS; WASTEWATER TREATMENT; *WATER RESOURCES

DESCRIPTIVE NOTE: 222P.

ABSTRACT: THE OBJECTIVE OF THIS REPORT IS TO PRESENT THE RESULT OF A STUDY TO DETERMINE WORKFORCE STAFFING AND TRAINING NEEDS OF STATES AND TERRITORIES THAT HAVE RECEIVED DELEGATIONS OR THAT WILL RECEIVE DELEGATIONS FOR FISCAL YEARS 1981 THROUGH 1985, AND TO OFFER RECOMMENDATIONS FOR ESTABLISHING AND IMPLEMENTING A COST-EFFECTIVE TRAINING DELIVERY SYSTEM TO RESPOND TO THESE IDENTIFIED NEEDS. THIS VOLUME CONTAINS THE BIBLIOGRAPHY AND THE FOLLOWING

APPENDICES: SPECIMEN INFORMATION SURVEY SHEET; ISS RESULTS FROM REGIONAL OFFICES, STATES; LIST OF EPA 200-SERIES COURSES; 205(G) STATE DELEGATION; AND, TECHNICAL DATA REPORT.

AVAILABILITY: HOMITZ, ALLEN AND ASSOCIATES, 235 W. MACARTHUR BLVD., SUITE 540, OAKLAND, CA 94611

IRIS ACCESSION NUMBER: EW007086

PUBLICATION DATE: JAN 81

TITLE: PESTICIDE USE AND WATER QUALITY.

PERSONAL AUTHOR: RENEAU, FRED

DESCRIPTOR: ACCIDENT PREVENTION; *AGRICULTURAL SAFETY; *CONSERVATION (ENVIRONMENT); ECOLOGY; *ENVIRONMENTAL EDUCATION; ENVIRONMENTAL STANDARDS; HEALTH; *LEGISLATION; *PESTICIDES; POISONING; SAFETY; SAFETY EQUIPMENT; WASTE DISPOSAL; WATER POLLUTION; *WATER RESOURCES; *WATER QUALITY

DESCRIPTIVE NOTE: 58P. EDRS PRICE: MF01/PC03 PLUS POSTAGE.

ABSTRACT: THIS PUBLICATION DESCRIBES IN NONTECHNICAL LANGUAGE THE PROBLEM OF PESTICIDE USE AND HOW IT AFFECTS WATER QUALITY. IT PROVIDES INFORMATION ON LAWS AFFECTING PESTICIDE USE AND THE REASONS FOR THEM, AS WELL AS GIVING DIRECTIONS FOR THE PROPER USE OF PESTICIDES. THE BOOKLET IS DIVIDED INTO FIVE CHAPTERS, EACH OF WHICH CONCLUDES WITH A LIST OF STUDY QUESTIONS (ANSWERS AT BACK OF BOOK). CHAPTER 1 INTRODUCES THE PROBLEM OF PESTICIDE USE AND WATER QUALITY. CHAPTERS 2 AND 3 DESCRIBE THE TYPES OF PESTICIDES AVAILABLE, THEIR USES, THEIR TOXICITY AND HAZARDS, AND SAFETY PRECAUTIONS. CHAPTER 4 TAKES UP THE SUBJECT OF PESTICIDES AND THE ENVIRONMENT AND SUGGESTS METHODS OF PESTICIDE STORAGE AND DISPOSAL. THE FINAL CHAPTER DESCRIBES AN INTEGRATED APPROACH TO PEST MANAGEMENT PRACTICES-CONTROL BY CULTURAL, BIOLOGICAL, AND CHEMICAL METHODS. A REFERENCE SECTION IS INCLUDED IN THE PUBLICATION. (ED 201 865)

AVAILABILITY: ERIC DOCUMENT REPRODUCTION SERVICE, P.O. BOX 190, ARLINGTON, VA 22210

IRIS ACCESSION NUMBER: EW007087

PUBLICATION DATE: 79

TITLE: WASTEWATER TREATMENT I. STUDENT'S GUIDE.

DESCRIPTOR: BEHAVIORAL OBJECTIVES; CONTINUING EDUCATION; *EQUIPMENT MAINTENANCE; *FACILITIES; INSTRUCTIONAL MATERIALS; *JOB SKILLS; LEARNING ACTIVITIES; POST SECONDARY EDUCATION; *VOCATIONAL EDUCATION; *WASTE DISPOSAL; WASTES; WATER POLLUTION; *WASTEWATER TREATMENT; TEACHING GUIDES

DESCRIPTIVE NOTE: 215P. EDRS PRICE: MF01/PC09 PLUS POSTAGE.

ABSTRACT: THIS STUDENT'S GUIDE IS DESIGNED TO PROVIDE STUDENTS WITH THE JOB SKILLS NECESSARY FOR THE SAFE AND EFFECTIVE OPERATION AND MAINTENANCE OF WASTEWATER TREATMENT PLANTS. IT CONSISTS OF THREE SECTIONS. SECTION 1 CONSISTS OF AN INTRODUCTORY NOTE OUTLINING COURSE OBJECTIVES AND THE FORMAT OF THE GUIDE. A COURSE OUTLINE CONSTITUTES THE SECOND SECTION. SECTION 3 (THE BULK OF THE GUIDE) PRESENTS LESSON OUTLINES, REVIEWS, AND LABS (IN THE FORM OF FIELD TRIPS TO WASTEWATER TREATMENT PLANTS) FOR USE IN CONJUNCTION WITH THE TEN CHAPTERS OF THE TEXT ENTITLED "OPERATION OF WASTEWATER TREATMENT PLANTS." TOPICS COVERED IN THESE OUTLINES ARE TREATMENT PLANT OPERATION; REASONS FOR TREATING WASTES; WASTEWATER FACILITIES; RACKS, SCREENS, COMMINUTORS, AND CRIT REMOVAL; SEDIMENTATION AND FLOTATION; TRICKLING FILTERS; ROTATING BIOLOGICAL CONTACTORS; ACTIVATED SLUDGE; WASTE TREATMENT PONDS; AND DISINFECTION AND CHLORINATION. (ED 201 840)

AVAILABILITY: ERIC DOCUMENT REPRODUCTION SERVICE, P.O. BOX 190, ARLINGTON, VA 22210

IRIS ACCESSION NUMBER: EW007088

PUBLICATION DATE: 79

TITLE: WASTEWATER TREATMENT I. INSTRUCTOR'S MANUAL.

DESCRIPTOR: BEHAVIORAL OBJECTIVES; CONTINUING EDUCATION; *EQUIPMENT MAINTENANCE; *FACILITIES; INSTRUCTIONAL MATERIALS; *JOB SKILLS; LEARNING ACTIVITIES; POST SECONDARY EDUCATION; TESTS; *VOCATIONAL EDUCATION; *WASTE DISPOSAL; WASTES; WATER POLLUTION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 108P. **EDRS PRICE:** MF01/PC17 PLUS POSTAGE.

ABSTRACT: THIS INSTRUCTOR'S MANUAL PROVIDES AN OUTLINE AND GUIDE FOR TEACHING WASTEWATER TREATMENT I. IT CONSISTS OF NINE SECTIONS. AN INTRODUCTORY NOTE AND A COURSE OUTLINE COMPRISE SECTIONS 1 AND 2. SECTION 3 (THE BULK OF THE GUIDE) PRESENTS LESSON OUTLINES FOR TEACHING THE TEN CHAPTERS OF THE MANUAL ENTITLED "OPERATION OF WASTEWATER TREATMENT PLANTS." TOPICS COVERED IN THE LESSON OUTLINES ARE TREATMENT PLANT OPERATION; REASONS FOR TREATING WASTES; WASTEWATER FACILITIES; RACKS, SCREENS, AND COMMINUTORS; CRIT REMOVAL; SEDIMENTATION AND FLOTATION; TRICKLING FILTERS; ROTATING BIOLOGICAL CONTACTORS; ACTIVATED SLUDGE; WASTE TREATMENT PONDS; AND DISINFECTION AND CHLORINATION. EACH LESSON OUTLINE CONTAINS A LIST OF OBJECTIVES, DISCUSSION OF THE RELATIVE IMPORTANCE OF MATERIAL TO BE PRESENTED, AND SUGGESTIONS FOR THREE-HOUR LABS INVOLVING FIELD TRIPS TO LOCAL FACILITIES. SUGGESTED HANDOUT MATERIALS, TRANSPARENCY MASTERS, AND VISUAL AIDS ARE INCLUDED IN SECTIONS 4-6. THE FINAL THREE SECTIONS CONSIST OF SAMPLE QUESTIONS AND ANSWERS FOR EXAMS AND FINALS, OBJECTIVE TESTS AND ANSWERS, AND DISCUSSION AND REVIEW QUESTIONS. (ED 201 839)

AVAILABILITY: ERIC DOCUMENT REPRODUCTION SERVICE, P.O. BOX 190, ARLINGTON, VA 22210

IRIS ACCESSION NUMBER: EW007089

PUBLICATION DATE: AUG 81

TITLE: METAL PROCESSING WASTES: WATER POLLUTION. 1977-JULY, 1981 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *BIBLIOGRAPHIES; ECONOMICS; HEALTH EFFECTS; *INDUSTRIAL WASTES; *METALS; PLANNING; *POLLUTION CONTROL; RESEARCH REPORTS; *WASTE DISPOSAL; *WASTEWATER TREATMENT; *WATER POLLUTION

DESCRIPTIVE NOTE: 120P. PBB1-807976

ABSTRACT: WATER POLLUTION CONTROL PROCESSES, ABATEMENT PLANNING, ECONOMICS, AND HEALTH EFFECTS FROM METAL PROCESSING ARE COVERED IN THIS BIBLIOGRAPHY ON METAL REFINING, SMELTING, WORKING, AND FINISHING. THIS UPDATED BIBLIOGRAPHY CONTAINS 112 CITATIONS, 29 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007090

PUBLICATION DATE: 79

TITLE: RIGGING - SAFE USE OF ROPE, CHAIN, HOISTS, AND CRANES.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *AUTOINSTRUCTIONAL PROGRAMS; *CHAINS; *EQUIPMENT; *HOISTS; *INSTRUCTIONAL MATERIALS; *POST SECONDARY EDUCATION; *RIGGING; *ROPES; SAFETY; SELF PACED INSTRUCTION; *SKILL DEVELOPMENT; STUDY GUIDES; TECHNICAL EDUCATION; *TRAINING PROGRAMS

DESCRIPTIVE NOTE: 80P.

ABSTRACT: THIS TRAINEE'S GUIDE PRESENTS MATERIAL FOR A SELF-STUDY COURSE ON: RIGGING - SAFE USE OF ROPE, CHAIN, HOISTS, AND CRANES. THIS UNIT CONTAINS FIVE LESSONS: RIGGING FUNDAMENTALS AND MECHANICAL ADVANTAGE; FIBER ROPES AND KNOT; WIRE ROPE AND CHAIN; CRANES AND HOISTS; AND SCAFFOLDS AND LADDERS. EACH LESSON CONSISTS OF TEXT, PROGRAMMED EXERCISES, AND A SELF-CHECK QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO. GROVE, BARRINGTON, IL 60010, (312) 381-1040

IRIS ACCESSION NUMBER: EW007091

PUBLICATION DATE: 79

TITLE: EQUIPMENT INSTALLATION - MOVING, SETTING, LEVELING, ALIGNING, AND ANCHORING PLANT EQUIPMENT.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *AUTOINSTRUCTIONAL PROGRAMS; *EQUIPMENT;
*INSTALLATION; *INSTRUCTIONAL MATERIALS; *POST SECONDARY
EDUCATION; SELF PACED INSTRUCTION; *SKILL DEVELOPMENT; STUDY
GUIDES; TECHNICAL EDUCATION; *TRAINING PROGRAMS

DESCRIPTIVE NOTE: 80P.

ABSTRACT: THIS TRAINEE'S GUIDE PRESENTS MATERIAL FOR A
SELF-STUDY COURSE ON: EQUIPMENT INSTALLATION - MOVING,
SETTING, LEVELING, ALIGNING, AND ANCHORING PLATE EQUIPMENT.
THIS UNIT CONTAINS FIVE LESSONS: PREPARING THE SITE;
VIBRATION CONTROL AND ANCHORING; MOVING AND SETTING;
LEVELING AND ALIGNING; AND CHECKING AND TEST RUNNING. EACH
LESSON CONSISTS OF TEXT, PROGRAMMED EXERCISES, AND A SELF-
CHECK QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING
SYSTEMS, 1301 SO. GROVE, BARRINGTON, IL 60010, (312) 381-
1840

IRIS ACCESSION NUMBER: EW007092

PUBLICATION DATE: 79

TITLE: INTRODUCTION TO PROCESS CONTROL - ELEMENTS OF
PROCESS CONTROL--IT'S LANGUAGE, SYMBOLS, AND BASIC
PRINCIPLES.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR
DESCRIPTOR: *AUTOINSTRUCTIONAL PROGRAMS; *EQUIPMENT;
INDUSTRIAL TECHNOLOGY; *INSTRUCTIONAL MATERIALS;
*INSTRUMENTATION; *POST SECONDARY EDUCATION *PROCESS
CONTROL; SELF PACED INSTRUCTION; SKILL DEVELOPMENT; STUDY
GUIDES; TECHNICAL EDUCATION; *TRAINING PROGRAMS

DESCRIPTIVE NOTE: 80P.

ABSTRACT: THIS TRAINEE'S GUIDE PRESENTS MATERIAL FOR A
SELF-STUDY COURSE ON: INTRODUCTION TO PROCESS CONTROL;
ELEMENTS OF PROCESS CONTROL - ITS LANGUAGE, SYMBOLS, AND
BASIC PRINCIPLES. THIS UNIT CONTAINS FIVE LESSONS: NATURE OF
PROCESS CONTROL; ELEMENTS OF PROCESS CONTROL; PROCESS
CONTROL SIGNALS; SYMBOLS AND DIAGRAMS; AND PROCESS CONTROL
LOOP OPERATIONS. EACH LESSON CONSISTS OF TEXT, PROGRAMMED
EXERCISES, AND A SELF-CHECK QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING
SYSTEMS, 1301 SO. GROVE, BARRINGTON, IL 60010, (312) 381-
1840

IRIS ACCESSION NUMBER: EW007093

PUBLICATION DATE: 79

TITLE: FOUNDATIONS OF MEASUREMENT INSTRUMENTATION -
MEASUREMENT STANDARDS, SYSTEM PRINCIPLES AND PRACTICES.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *AUTOINSTRUCTIONAL PROGRAMS; *EQUIPMENT;
INDUSTRIAL TECHNOLOGY; *INSTRUCTIONAL MATERIALS;
*INSTRUMENTATION; *MEASUREMENT; *POST SECONDARY EDUCATION;
SELF PACED INSTRUCTION; SKILL DEVELOPMENT; STUDY GUIDES;
TECHNICAL EDUCATION; *TRAINING PROGRAMS

DESCRIPTIVE NOTE: 80P.

ABSTRACT: THIS TRAINEE'S GUIDE PRESENTS MATERIAL FOR A
SELF-STUDY COURSE ON: FOUNDATIONS OF MEASUREMENT
INSTRUMENTATION - MEASUREMENT STANDARDS, SYSTEM PRINCIPLES
AND PRACTICES. THIS UNIT CONTAINS FIVE LESSONS: INTRODUCTION
TO MEASUREMENT; BASIC MEASUREMENT SYSTEMS; TRANSDUCER
PRINCIPLES; SYSTEM STANDARDS AND INSTRUMENT CALIBRATION; AND
PRACTICES IN THE INSTRUMENT SHOP. EACH LESSON CONSISTS OF
TEXT, PROGRAMMED EXERCISES, AND A SELF-CHECK QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING
SYSTEMS, 1301 SO. GROVE, BARRINGTON, IL 60010, (312) 381-
1840

IRIS ACCESSION NUMBER: EW007094

PUBLICATION DATE: 79

TITLE: PRESSURE MEASUREMENT - APPLICATIONS OF PRESSURE
INSTRUMENTATION TO INDUSTRIAL PROCESS.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR
DESCRIPTOR: *AUTOINSTRUCTIONAL PROGRAMS; *EQUIPMENT;
INDUSTRIAL TECHNOLOGY; *INSTRUCTIONAL MATERIALS;
*INSTRUMENTATION; MAINTENANCE; *MEASUREMENT; PHYSICS; *POST
SECONDARY EDUCATION; *PRESSURE; SELF PACED INSTRUCTION;
SKILL DEVELOPMENT; STUDY GUIDES; TECHNICAL EDUCATION;
*TRAINING PROGRAMS

DESCRIPTIVE NOTE: 80P.

ABSTRACT: THIS TRAINEE'S GUIDE PRESENTS MATERIAL FOR A
SELF-STUDY COURSE ON: PRESSURE MEASUREMENT - APPLICATIONS OF
PRESSURE INSTRUMENTATION TO INDUSTRIAL PROCESS. THIS UNIT
CONTAINS FIVE LESSONS: PRINCIPLES OF PRESSURE IN LIQUIDS AND
GASES; PRESSURE SENSORS; PRESSURE TRANSDUCERS; LOW PRESSURE
MEASUREMENT; AND PRESSURE INSTRUMENT INSTALLATION AND
SERVICING. EACH LESSON CONSISTS OF TEXT, PROGRAMMED
EXERCISES, AND A SELF-CHECK QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING
SYSTEMS, 1301 SO. GROVE, BARRINGTON, IL 60010, (312) 381-
1840

IRIS ACCESSION NUMBER: EW007095

PUBLICATION DATE: 79

TITLE: FLOW, WEIGHT, AND MOTION MEASUREMENT - THE
MEASUREMENT OF FORCES ACTING ON BODIES AT REST AND IN

MOTION.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *AUTOINSTRUCTIONAL PROGRAMS; *FLOW MEASUREMENT; *FORCE; INDUSTRIAL TECHNOLOGY; INSTRUMENTATION; *INSTRUCTIONAL MATERIALS; *MASS; *MEASUREMENT; *MOTION; *PHYSICS; *POST SECONDARY EDUCATION; SELF PACED INSTRUCTION; SKILL DEVELOPMENT; STUDY GUIDES; TECHNICAL EDUCATION; *TRAINING PROGRAMS; *WEIGHT

DESCRIPTIVE NOTE: 80P.

ABSTRACT: THIS TRAINEE'S GUIDE PRESENTS MATERIAL FOR A SELF-STUDY COURSE ON: FORCE, WEIGHT, AND MOTION MEASUREMENT - THE MEASUREMENT OF FORCES ACTING ON BODIES AT REST AND IN MOTION. THIS UNIT CONTAINS FIVE LESSONS: FORCE, STRESS, AND STRAIN; WEIGHT AND MASS MEASUREMENT; WEIGHING MATERIALS IN MOTION; DISPLACEMENT; AND ACCELERATION/VIBRATION/SHOCK. EACH LESSON CONSISTS OF TEXT, PROGRAMMED EXERCISES, AND A SELF-CHECK QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO. GROVE, BARRINGTON, IL 60010, (312) 381-1840

IRIS ACCESSION NUMBER: EW007097

PUBLICATION DATE: 79

TITLE: FLOW MEASUREMENT II - PRINCIPLES AND APPLICATIONS OF SPECIALIZED FLOW MEASURING DEVICES.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *AUTOINSTRUCTIONAL PROGRAMS; EQUIPMENT; *FLOW MEASUREMENT; *FLUIDS; INDUSTRIAL TECHNOLOGY; *INSTRUCTIONAL MATERIALS; *INSTRUMENTATION; MAINTENANCE; *METERS; *MEASUREMENT; *POST SECONDARY EDUCATION; SELF PACED INSTRUCTION; SKILL DEVELOPMENT; *STUDY GUIDES; TECHNICAL EDUCATION; *TRAINING PROGRAMS

DESCRIPTIVE NOTE: 80P.

ABSTRACT: THIS TRAINEE'S GUIDE PRESENTS MATERIAL FOR A SELF-STUDY COURSE ON: FLOW MEASUREMENT - PRINCIPLES AND APPLICATIONS OF SPECIALIZED FLOW MEASURING DEVICES. THIS UNIT CONTAINS FIVE LESSONS: POSITIVE DISPLACEMENT METERS; TURBINE AND MAGNETIC FLOW METERS; OTHER FLUID FLOWMETERS; METERING THE FLOW OF SOLID PARTICLES; AND INSTALLATION AND MAINTENANCE OF FLOW INSTRUMENTS. EACH LESSON CONSISTS OF TEXT, PROGRAMMED EXERCISES, AND A SELF-CHECK QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO. GROVE, BARRINGTON, IL 60010, (312) 381-1840

IRIS ACCESSION NUMBER: EW007098

PUBLICATION DATE: 79

TITLE: LEVEL MEASUREMENT - INSTRUMENTS AND TECHNIQUES FOR MEASURING LEVELS OF FLUIDS AND SOLIDS.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *AUTOINSTRUCTIONAL PROGRAMS; *EQUIPMENT; *FLUIDS; INDUSTRIAL TECHNOLOGY; *INSTRUCTIONAL MATERIALS; *INSTRUMENTATION; *MEASUREMENT; *POST SECONDARY EDUCATION; SELF PACED INSTRUCTION; SKILL DEVELOPMENT; *SOLIDS; STUDY GUIDES; TECHNICAL EDUCATION; *TRAINING PROGRAMS

DESCRIPTIVE NOTE: 80P.

ABSTRACT: THIS TRAINEE'S GUIDE PRESENTS MATERIAL FOR A SELF-STUDY COURSE ON: LEVEL MEASUREMENT - INSTRUMENTS AND TECHNIQUES FOR MEASURING LEVELS OF FLUIDS AND SOLIDS. THIS UNIT CONTAINS FIVE LESSONS: PRINCIPLES OF LEVEL MEASUREMENT; PRESSURE HEAD INSTRUMENTS; ELECTRICAL METHODS; SOLID LEVEL MEASUREMENT; AND LEVEL INSTRUMENT SERVICING. EACH LESSON CONSISTS OF TEXT, PROGRAMMED EXERCISES, AND A SELF-CHECK QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO. GROVE, BARRINGTON, IL 60010, (312) 381-1840

IRIS ACCESSION NUMBER: EW007099

PUBLICATION DATE: 79

TITLE: TEMPERATURE MEASUREMENT - TEMPERATURE MEASURING INSTRUMENTS--THEIR OPERATION AND SERVICING.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *AUTOINSTRUCTIONAL PROGRAMS; INDUSTRIAL TECHNOLOGY; *INSTRUCTIONAL MATERIALS; *INSTRUMENTATION; MAINTENANCE; *MEASUREMENT; *POST SECONDARY EDUCATION; SELF PACED INSTRUCTION; SKILL DEVELOPMENT; STUDY GUIDES; TECHNICAL EDUCATION; *TEMPERATURE; *TRAINING PROGRAMS

DESCRIPTIVE NOTE: 80P.

ABSTRACT: THIS TRAINEE'S GUIDE PRESENTS MATERIAL FOR A SELF-STUDY COURSE ON: TEMPERATURE MEASUREMENT - TEMPERATURE MEASURING INSTRUMENTS: THEIR OPERATION AND SERVICING. THIS UNIT CONTAINS FIVE LESSONS: TEMPERATURE MEASUREMENT PRINCIPLES AND INDICATORS; BIMETALLIC AND FLUID-FILLED TEMPERATURE INSTRUMENTS; ELECTRICAL TEMPERATURE INSTRUMENTS; PYROMETRY; AND TEMPERATURE INSTRUMENT MAINTENANCE AND CALIBRATION. EACH LESSON CONSISTS OF TEXT, PROGRAMMED EXERCISES, AND A SELF-CHECK QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO. GROVE, BARRINGTON, IL 60010, (312) 381-1840

IRIS ACCESSION NUMBER: EW007100
PUBLICATION DATE: 79

TITLE: FINAL CONTROL ELEMENTS - A SURVEY OF DEVICES THAT DIRECTLY ALTER PROCESS VARIABLES.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *ACTUATORS; *AUTOINSTRUCTIONAL PROGRAMS; EQUIPMENT; INDUSTRIAL TECHNOLOGY; *INSTRUCTIONAL MATERIALS; *POST SECONDARY EDUCATION; *PROCESS CONTROL; SELF PACED INSTRUCTION; SKILL DEVELOPMENT; STUDY GUIDES; TECHNICAL EDUCATION; *TRAINING PROGRAMS; *VALVES

DESCRIPTIVE NOTE: 80P.

ABSTRACT: THIS TRAINEE'S GUIDE PRESENTS MATERIAL ON: FINAL CONTROL ELEMENTS - A SURVEY OF DEVICES THAT DIRECTLY ALTER PROCESS VARIABLES. THIS UNIT CONTAINS FIVE LESSONS: FINAL CONTROL ELEMENTS IN PROCESS LOOPS; ELECTRIC ACTUATORS; PNEUMATIC AND HYDRAULIC ACTUATORS; CONTROL VALVES; AND CONTROL ELEMENT APPLICATIONS; EACH LESSON CONSISTS OF TEXT, PROGRAMMED EXERCISES, AND A SELF-CHECK QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO. GROVE, BARRINGTON, IL 60010, (312) 381-1840

IRIS ACCESSION NUMBER: EW007101

PUBLICATION DATE: 79

TITLE: SAFETY, CALIBRATION, AND TESTING PROCEDURES - EXAMINING THE GENERAL TECHNIQUES OF MAINTAINING PROCESS INSTRUMENTS.

PERSONAL AUTHOR: JANSEN, RALPH F., DIRECTOR

DESCRIPTOR: *AUTOINSTRUCTIONAL PROGRAMS; *CALIBRATION; INDUSTRIAL TECHNOLOGY; *INSTRUCTIONAL MATERIALS; *INSTRUMENTATION; *POST SECONDARY EDUCATION; *SAFETY; SELF PACED INSTRUCTION; SKILL DEVELOPMENT; STANDARDS; STUDY GUIDES; TECHNICAL EDUCATION; *TESTING; *TRAINING PROGRAMS; TROUBLESHOOTING

DESCRIPTIVE NOTE: 80P.

ABSTRACT: THIS TRAINEE'S GUIDE PRESENTS MATERIAL FOR A SELF-STUDY COURSE ON: SAFETY, CALIBRATION, AND TESTING PROCEDURES - EXAMINING THE GENERAL TECHNIQUES OF MAINTAINING PROCESS INSTRUMENTS. THIS UNIT CONTAINS FIVE LESSONS: SAFETY STANDARDS AND PRACTICES; SERVICING FUNDAMENTALS; ELECTRICAL AND ELECTRONIC STATIONS; PNEUMATIC AND HYDRAULIC STATIONS; AND TROUBLESHOOTING. EACH LESSON CONSISTS OF TEXT, PROGRAMMED EXERCISES, AND A SELF-CHECK QUIZ.

AVAILABILITY: TECHNICAL PUBLISHING COMPANY (TPC) TRAINING SYSTEMS, 1301 SO. GROVE, BARRINGTON, IL 60010, (312) 381-1840

IRIS ACCESSION NUMBER: EW007102
PUBLICATION DATE: 81

TITLE: TRAINING VOCATIONAL EDUCATION STUDENTS IN ENVIRONMENTAL HEALTH. VOCATIONAL EDUCATION TRAINING IN ENVIRONMENTAL HEALTH SCIENCES.

DESCRIPTOR: *ALLIED HEALTH OCCUPATIONS; *COMPETENCY BASED EDUCATION; ENVIRONMENTAL EDUCATION; ENVIRONMENTAL TECHNICIANS; INSTRUCTIONAL MATERIALS; *POST SECONDARY EDUCATION; *PUBLIC HEALTH; SCIENCE EDUCATION; *TECHNICAL EDUCATION; *VOCATIONAL EDUCATION; *ENVIRONMENTAL HEALTH

DESCRIPTIVE NOTE: 22P.

ABSTRACT: CONSUMER DYNAMICS, INC., HAS PRODUCED 25 COMPETENCY-BASED MODULES FOR USE IN EXISTING ENVIRONMENTAL HEALTH VOCATIONAL EDUCATION PROGRAMS. DESCRIBED IN THIS REPORT ARE THE EDUCATIONAL ELEMENTS INCORPORATED INTO THESE MODULES. INFORMATION ON THE ENVIRONMENTAL HEALTH FIELD, THE NATURE OF THE INTENDED USERS, AND THE OBJECTIVES AND FORMAT OF THE LEARNING UNITS IS PRESENTED. THE PERFORMANCE-ORIENTED MODULES FOLLOW THE COMPETENCY-BASED VOCATIONAL EDUCATION FORMAT. THAT IS, THEY INCORPORATE STANDARDIZED OCCUPATIONAL PROFICIENCY MEASURES AND CRITERION-REFERENCED TESTS TO EVALUATE STUDENT ACHIEVEMENT OF SKILLS REQUIRED TO SUCCESSFULLY COMPLETE A JOB IN A WORK SITUATION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007103

PUBLICATION DATE: 81

TITLE: OPERATING SOUND-MEASURING EQUIPMENT. VOCATIONAL EDUCATION TRAINING IN ENVIRONMENTAL HEALTH SCIENCES - MODULE 1.

DESCRIPTOR: *ACOUSTICS; *ALLIED HEALTH OCCUPATIONS; COMPETENCY BASED EDUCATION; ENVIRONMENTAL EDUCATION; ENVIRONMENTAL TECHNICIANS; *MEASUREMENT EQUIPMENT; *POST SECONDARY EDUCATION; SCIENCE EDUCATION; *TECHNICAL EDUCATION; *VOCATIONAL EDUCATION; *ENVIRONMENTAL HEALTH; NOISE (SOUND)

DESCRIPTIVE NOTE: 30P.

ABSTRACT: PRESENTED IS A PERFORMANCE-ORIENTED COMPETENCY-BASED INSTRUCTIONAL MODULE ON SOUND-MEASURING EQUIPMENT THAT IS INTENDED TO SUPPLEMENT EXISTING COURSE MATERIALS IN ENVIRONMENTAL HEALTH. UPON COMPLETING THE STEPS AND EXERCISES IN THE LEARNING UNIT, STUDENTS SHOULD BE ABLE TO CALIBRATE, OPERATE AND POSITION A TYPE 2 SOUND LEVEL METER FOR TAKING ACCURATE READINGS. THE THREE LESSONS INVOLVE SETTING RANGES, INSTRUMENT CALIBRATION AND MEASUREMENT TECHNIQUES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

88

IRIS ACCESSION NUMBER: EW007104

PUBLICATION DATE: 81

TITLE: OBTAINING MEASUREMENTS OF STATIONARY ENVIRONMENTAL NOISE SOURCES. VOCATIONAL EDUCATION TRAINING IN ENVIRONMENTAL HEALTH SCIENCES - MODULE 2.

DESCRIPTOR: *ACOUSTICAL ENVIRONMENT; ACOUSTICS; *ALLIED HEALTH OCCUPATIONS; COMPETENCY BASED EDUCATION; ENVIRONMENTAL EDUCATION; ENVIRONMENTAL TECHNICIANS; *MEASUREMENT EQUIPMENT; POST SECONDARY EDUCATION; SCIENCE EDUCATION; *TECHNICAL EDUCATION; *VOCATIONAL EDUCATION; *ENVIRONMENTAL HEALTH; *NOISE (SOUND); NOISE POLLUTION

DESCRIPTIVE NOTE: 37P.

ABSTRACT: THE THREE LESSONS ON ENVIRONMENTAL NOISE MEASUREMENT PRESENTED IN THIS MANUAL DEAL WITH THE DETERMINATION OF SOUND LEVELS PRODUCED BY STATIONARY SOURCES. AFTER COMPLETING THE SELF-INSTRUCTED EXERCISES IN THE MODULE, STUDENTS SHOULD BE ABLE TO IDENTIFY, CHARACTERIZE AND MEASURE NOISES PRODUCED BY STATIONARY SOUND SOURCES LOCATED IN RESIDENTIAL, INDUSTRIAL AND COMMERCIAL AREAS. THE PERFORMANCE-ORIENTED COMPETENCY-BASED LEARNING UNIT IS DESIGNED TO SUPPLEMENT EXISTING COURSE MATERIALS IN THE ENVIRONMENTAL HEALTH SCIENCES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007105

PUBLICATION DATE: 81

TITLE: OPERATING HIGH-VOLUME AIR SAMPLERS. VOCATIONAL EDUCATION TRAINING IN ENVIRONMENTAL HEALTH SCIENCES - MODULE 3.

DESCRIPTOR: *AIR POLLUTION; ALLIED HEALTH OCCUPATIONS; COMPETENCY BASED EDUCATION; ENVIRONMENTAL EDUCATION; ENVIRONMENTAL TECHNICIANS; *MEASUREMENT EQUIPMENT; *POST SECONDARY EDUCATION; SCIENCE EDUCATION; *SCIENCE EQUIPMENT; *TECHNICAL EDUCATION; *VOCATIONAL EDUCATION; ENVIRONMENTAL HEALTH; *ENVIRONMENTAL MONITORING

DESCRIPTIVE NOTE: 38P.

ABSTRACT: BY COMPLETING THE STEPS AND EXERCISES IN THIS PERFORMANCE-ORIENTED LEARNING UNIT, STUDENTS SHOULD BE ABLE TO NAME AND IDENTIFY THE MAJOR COMPONENTS OF A HIGH-VOLUME AIR SAMPLER AS WELL AS OPERATE, MAINTAIN AND CALIBRATE THE UNIT IN THE FIELD. THE THREE SELF-INSTRUCTED LESSONS INVOLVE DISASSEMBLING THE SAMPLER, OPERATING AND INSPECTING IT, AND PLOTTING A CALIBRATION CURVE FOR A FIELD-TYPE (VISIFLOAT) ROTAMETER. DESIGNED TO SUPPLEMENT EXISTING ENVIRONMENTAL HEALTH COURSE MATERIALS, THE MODULE FOLLOWS A COMPETENCY-BASED FORMAT.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007106

PUBLICATION DATE: 81

TITLE: USING DETECTOR TUBES AND PUMPS. VOCATIONAL EDUCATION TRAINING IN ENVIRONMENTAL HEALTH SCIENCES - MODULE 4.

DESCRIPTOR: *AIR POLLUTION; *ALLIED HEALTH OCCUPATIONS; COMPETENCY BASED EDUCATION; ENVIRONMENTAL EDUCATION; ENVIRONMENTAL TECHNICIANS; MEASUREMENT EQUIPMENT; *POST SECONDARY EDUCATION; SCIENCE EDUCATION; *TECHNICAL EDUCATION; *VOCATIONAL EDUCATION; *WORK ENVIRONMENT; ENVIRONMENTAL HEALTH; *OCCUPATIONAL HEALTH

DESCRIPTIVE NOTE: 27P.

ABSTRACT: INDUSTRIAL FIRMS AND GOVERNMENT AGENCIES FREQUENTLY EMPLOY A SAFETY AND HEALTH PROFESSIONAL TO MEASURE GASES AND VAPORS RELEASED INTO THE AIR THAT WORKERS BREATHE. INSTRUCTIONS CONTAINED IN THIS MODULE WILL SHOW A TECHNICIAN HOW TO USE AN AIR SAMPLING PUMP AND DETECTOR TUBES UNDER THE SUPERVISION OF AN INDUSTRIAL HYGIENIST. AFTER WORKING THROUGH THE THREE SELF-INSTRUCTED LESSONS, STUDENTS SHOULD BE ABLE TO CALIBRATE, ASSEMBLE AND OPERATE THIS EQUIPMENT. THE COMPETENCY-BASED LEARNING UNIT IS INTENDED TO SUPPLEMENT EXISTING COURSE MATERIALS IN THE ENVIRONMENTAL HEALTH SCIENCES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007107

PUBLICATION DATE: 81

TITLE: COLLECTING INDUSTRIAL HEALTH INFORMATION. VOCATIONAL EDUCATION TRAINING IN ENVIRONMENTAL HEALTH SCIENCES - MODULE 5.

DESCRIPTOR: *ALLIED HEALTH OCCUPATIONS; COMPETENCY BASED EDUCATION; DATA COLLECTION; ENVIRONMENTAL EDUCATION; ENVIRONMENTAL TECHNICIANS; POST SECONDARY EDUCATION; *SAFETY; SCIENCE EDUCATION; *TECHNICAL EDUCATION; *VOCATIONAL EDUCATION; *WORK ENVIRONMENT; ENVIRONMENTAL HEALTH; *OCCUPATIONAL HEALTH; *OCCUPATIONAL SAFETY

DESCRIPTIVE NOTE: 29P.

ABSTRACT: DESCRIBED ARE LEARNING EXERCISES WHICH WILL ENABLE A TECHNICIAN TO COLLECT PRELIMINARY SAFETY AND HEALTH INFORMATION ABOUT AN INDUSTRIAL FACILITY. THE THREE SELF-INSTRUCTED, PERFORMANCE-ORIENTED LESSONS ADDRESS COLLECTING INFORMATION ABOUT: (1) WORKFLOW AND WORKERS; (2) THE USE AND STORAGE OF BIOLOGICAL, CHEMICAL AND PHYSICAL AGENTS; AND (3) THE PRACTICES WORKERS FOLLOW TO PREVENT ACCIDENTAL EXPOSURE TO HAZARDOUS MATERIALS. THE COMPETENCY-BASED MODULE IS DESIGNED TO SUPPLEMENT EXISTING MATERIALS IN THE ENVIRONMENTAL HEALTH SCIENCES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007108

PUBLICATION DATE: 81

TITLE: USING PRECISION ROTAMETERS. VOCATIONAL EDUCATION TRAINING IN ENVIRONMENTAL HEALTH SCIENCES - MODULE 6.

DESCRIPTOR: *AIR POLLUTION; *ALLIED HEALTH OCCUPATIONS; COMPETENCY BASED EDUCATION; ENVIRONMENTAL EDUCATION; ENVIRONMENTAL TECHNICIANS; *MEASUREMENT EQUIPMENT; *POST SECONDARY EDUCATION; SCIENCE EDUCATION; *TECHNICAL EDUCATION; *VOCATIONAL EDUCATION; WORK ENVIRONMENT; *ENVIRONMENTAL HEALTH

DESCRIPTIVE NOTE: 32P.

ABSTRACT: DESCRIBED ARE PROCEDURES FOR DISASSEMBLING, CLEANING AND CALIBRATING A LOW-FLOW PRECISION ROTAMETER THAT CAN THEN BE USED TO CALIBRATE PORTABLE AIR SAMPLING EQUIPMENT. THE MODULE CONTAINS THREE COMPETENCY-BASED LESSONS WHICH ARE INTENDED TO SUPPLEMENT EXISTING ENVIRONMENTAL HEALTH COURSE MATERIALS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007109

PUBLICATION DATE: 81

TITLE: CALIBRATING PERSONAL AIR MONITORING DEVICES. VOCATIONAL EDUCATION TRAINING IN ENVIRONMENTAL HEALTH SCIENCES - MODULE 7.

DESCRIPTOR: *AIR POLLUTION; ALLIED HEALTH OCCUPATIONS; COMPETENCY BASED EDUCATION; ENVIRONMENTAL EDUCATION; ENVIRONMENTAL TECHNICIANS; *MEASUREMENT EQUIPMENT; OCCUPATIONAL DISEASES; *POST SECONDARY EDUCATION; SCIENCE EDUCATION; *TECHNICAL EDUCATION; *VOCATIONAL EDUCATION; *WORK ENVIRONMENT; ENVIRONMENTAL HEALTH; *OCCUPATIONAL HEALTH

DESCRIPTIVE NOTE: 29P.

ABSTRACT: WORKERS' EXPOSURES TO AIRBORNE CONTAMINANTS IN INDUSTRIAL FACILITIES MAY BE MEASURED BY A PERSONAL MONITORING DEVICE. PRESENTED IN THIS MODULE ARE SELF-INSTRUCTED EXERCISES THAT WILL ENABLE A TECHNICIAN TO CALIBRATE ANY PERSONAL AIR SAMPLING PUMP BY USING THE SOAPBUBBLE METER CALIBRATION METHOD. THE THREE LESSONS ARE INTENDED TO SUPPLEMENT EXISTING COURSE MATERIALS IN THE ENVIRONMENTAL HEALTH SCIENCES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL RD., SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007110

PUBLICATION DATE: 81

TITLE: COLLECTING SAMPLES OF WORKPLACE AIR. VOCATIONAL EDUCATION TRAINING IN ENVIRONMENTAL HEALTH SCIENCES - MODULE 8.

DESCRIPTOR: *AIR POLLUTION; ALLIED HEALTH OCCUPATIONS; COMPETENCY BASED EDUCATION; ENVIRONMENTAL EDUCATION; ENVIRONMENTAL TECHNICIANS; *MEASUREMENT TECHNIQUES; POST SECONDARY EDUCATION; SAMPLING; SCIENCE EDUCATION; *TECHNICAL EDUCATION; *VOCATIONAL EDUCATION; *WORK ENVIRONMENT; ENVIRONMENTAL HEALTH; *OCCUPATIONAL HEALTH

DESCRIPTIVE NOTE: 27P.

ABSTRACT: UPON COMPLETING THE STEPS AND EXERCISES PRESENTED, STUDENTS SHOULD BE ABLE TO COLLECT A SAMPLE OF AIR AN INDUSTRIAL WORKER BREATHE AND TO OBTAIN THE NECESSARY INFORMATION TO VERIFY SAMPLING CONDITIONS. THE THREE COMPETENCY-BASED LESSONS DESCRIBED ARE INTENDED TO SUPPLEMENT EXISTING ENVIRONMENTAL HEALTH COURSE MATERIALS. STUDENTS USING THE SELF-INSTRUCTED MODULE BECOME INVOLVED IN STUDYING AIR SAMPLING CONDITIONS, POSITIONING AN AIR SAMPLING TRAIN, AND ADJUSTING PUMP FLOW.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007111

PUBLICATION DATE: 81

TITLE: USING AIR-PURIFYING RESPIRATORS. VOCATIONAL EDUCATION TRAINING IN ENVIRONMENTAL HEALTH SCIENCES - MODULE 9.

DESCRIPTOR: *AIR POLLUTION; ALLIED HEALTH OCCUPATIONS; COMPETENCY BASED EDUCATION; ENVIRONMENTAL EDUCATION; ENVIRONMENTAL TECHNICIANS; *MEASUREMENT EQUIPMENT; OCCUPATIONAL DISEASES; *POST SECONDARY EDUCATION; SCIENCE EDUCATION; *TECHNICAL EDUCATION; *VOCATIONAL EDUCATION; *WORK ENVIRONMENT; ENVIRONMENTAL HEALTH; *OCCUPATIONAL HEALTH

DESCRIPTIVE NOTE: 33P.

ABSTRACT: PRESENTED ARE THREE SELF-INSTRUCTED LESSONS ON DISASSEMBLING, CLEANING, INSPECTING AND TESTING A DUAL CARTRIDGE AIR-PURIFYING RESPIRATOR. THESE DEVICES ARE WORN BY WORKERS WHO MAY BE EXPOSED TO POTENTIALLY HARMFUL AIRBORNE SUBSTANCES. THE COMPETENCY-BASED LEARNING MODULE IS INTENDED TO SUPPLEMENT EXISTING MATERIALS FOR POSTSECONDARY ENVIRONMENTAL HEALTH EDUCATION PROGRAMS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007113

PUBLICATION DATE: 81

TITLE: USING IONIZING RADIATION DETECTORS. VOCATIONAL EDUCATION TRAINING IN ENVIRONMENTAL HEALTH SCIENCES - MODULE 11.

DESCRIPTOR: *ALLIED HEALTH OCCUPATIONS; COMPETENCY BASED EDUCATION; ENVIRONMENTAL EDUCATION; ENVIRONMENTAL TECHNICIANS; *MEASUREMENT EQUIPMENT; *POST SECONDARY EDUCATION; *RADIATION; SCIENCE EDUCATION; *TECHNICAL EDUCATION; *VOCATIONAL EDUCATION; WORK ENVIRONMENT; ENVIRONMENTAL HEALTH; *OCCUPATIONAL SAFETY

DESCRIPTIVE NOTE: 33P.

ABSTRACT: THREE LESSONS DEALING WITH THE OPERATION OF IONIZING RADIATION DETECTORS COMPRISE THIS SELF-INSTRUCTED LEARNING MODULE. UPON COMPLETION OF THE STEPS AND EXERCISES PROVIDED, STUDENTS SHOULD BE ABLE TO OPERATE A GEIGER COUNTER, READ A POCKET ION CHAMBER DOSIMETER AND DESCRIBE HOW RADIATION LEVELS VARY WITH DISTANCE, SHIELDING AND TIME. THE COMPETENCY-BASED MANUAL IS DESIGNED TO SUPPLEMENT EXISTING ENVIRONMENTAL HEALTH COURSE MATERIALS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007114

PUBLICATION DATE: 81

TITLE: COLLECTING PESTS FOR IDENTIFICATION. VOCATIONAL EDUCATION TRAINING IN ENVIRONMENTAL HEALTH SCIENCES - MODULE 12.

DESCRIPTOR: *ALLIED HEALTH OCCUPATIONS; COMPETENCY BASED EDUCATION; *DISEASE CONTROL; ENVIRONMENTAL EDUCATION; ENVIRONMENTAL TECHNICIANS; *POST SECONDARY EDUCATION; *PUBLIC HEALTH; SCIENCE EDUCATION; *TECHNICAL EDUCATION; *VOCATIONAL EDUCATION; ENVIRONMENTAL HEALTH; *PEST CONTROL

DESCRIPTIVE NOTE: 42P.

ABSTRACT: THE FIRST STEP IN CONTROLLING DISEASE-CARRYING RODENTS, FLIES AND MOSQUITOES INVOLVES THE SAMPLING AND COLLECTION OF THESE ORGANISMS. ACCORDINGLY, THE THREE COMPETENCY-BASED LESSONS PRESENTED OFFER INSTRUCTIONS IN: (1) LOCATING, TRAPPING AND COLLECTING PEST SPECIMENS; AND (2) PREPARING THE SPECIMENS FOR SHIPMENT TO A LABORATORY FOR IDENTIFICATION. EXISTING ENVIRONMENTAL HEALTH COURSE MATERIALS WHICH LACK UNITS ON PEST COLLECTION MAY BE AUGMENTED BY THIS MODULE.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007115

PUBLICATION DATE: 81

TITLE: PERFORMING ANALYSES FOR WATERBORNE BACTERIA. VOCATIONAL EDUCATION TRAINING IN ENVIRONMENTAL HEALTH SCIENCES - MODULE 13.

DESCRIPTOR: ALLIED HEALTH OCCUPATIONS; ENVIRONMENTAL EDUCATION; ENVIRONMENTAL TECHNICIANS; *LABORATORY PROCEDURES; *MICROBIOLOGY; POST SECONDARY EDUCATION; *PUBLIC HEALTH; SANITARY FACILITIES; SCIENCE EDUCATION; *TECHNICAL EDUCATION; *VOCATIONAL EDUCATION; *WATER RESOURCES; *ENVIRONMENTAL HEALTH

DESCRIPTIVE NOTE: 32P.

ABSTRACT: PRESENTED ARE SELF-INSTRUCTED EXERCISES DESIGNED TO SHOW ENVIRONMENTAL HEALTH TECHNICIANS HOW TO PERFORM AN EXAMINATION OF DRINKING WATER FOR THE PRESENCE OF COLIFORM BACTERIA. THE LEARNING MODULE IS INTENDED TO SUPPLEMENT EXISTING COURSE MATERIALS THAT DO NOT INCLUDE INSTRUCTION IN THE MEMBRANE FILTER TECHNIQUE.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007116

PUBLICATION DATE: 81

TITLE: USING A SWINGING VANE ANEMOMETER TO MEASURE AIRFLOW. VOCATIONAL EDUCATION TRAINING IN ENVIRONMENTAL HEALTH SCIENCES - MODULE 14.

DESCRIPTOR: *AIR FLOW; ALLIED HEALTH OCCUPATIONS; COMPETENCY BASED EDUCATION; ENVIRONMENTAL EDUCATION; ENVIRONMENTAL TECHNICIANS; *MEASUREMENT EQUIPMENT; *POST SECONDARY EDUCATION; SCIENCE EDUCATION; *TECHNICAL EDUCATION; *VENTILATION; *VOCATIONAL EDUCATION; WORK ENVIRONMENT; ENVIRONMENTAL HEALTH; *OCCUPATIONAL HEALTH

DESCRIPTIVE NOTE: 26P.

ABSTRACT: EVALUATION OF THE PERFORMANCE OF A VENTILATION SYSTEM IS A NECESSARY PART OF INDUSTRIAL AIR QUALITY SURVEYS. DESCRIBED IN THIS COMPETENCY-BASED MODULE ARE STEPS AND EXERCISES THAT WILL HELP TECHNICIANS LEARN TO USE A SWINGING VANE ANEMOMETER (ALNOR VILOMETER) TO MEASURE AIR FLOW. THE SELF-INSTRUCTED LEARNING UNIT IS INTENDED TO AUGMENT EXISTING ENVIRONMENTAL HEALTH COURSE MATERIALS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007117

PUBLICATION DATE: 81

TITLE: OBTAINING HEAT STRESS MEASUREMENTS. VOCATIONAL

EDUCATION TRAINING IN ENVIRONMENTAL HEALTH SCIENCES - MODULE 15.

DESCRIPTOR: *ALLIED HEALTH OCCUPATIONS; COMPETENCY BASED EDUCATION; ENVIRONMENTAL EDUCATION; ENVIRONMENTAL TECHNICIANS; *MEASUREMENT EQUIPMENT; *POST SECONDARY EDUCATION; SCIENCE EDUCATION; *TECHNICAL EDUCATION; TEMPERATURE; *THERMAL ENVIRONMENT; *VOCATIONAL EDUCATION; WORK ENVIRONMENT; ENVIRONMENTAL HEALTH; *OCCUPATIONAL HEALTH

DESCRIPTIVE NOTE: 32P.

ABSTRACT: EXTREMES OF TEMPERATURE AFFECT WORKER PRODUCTIVITY AND PERFORMANCE. STUDENTS WHO USE THIS SELF-INSTRUCTED MODULE WILL LEARN HOW TO TAKE ACCURATE TEMPERATURE MEASUREMENTS WITH THE WET BULB, DRY BULB AND GLOBE THERMOMETERS. ALSO COVERED IS THE MEASUREMENT OF WET BULB GLOBE TEMPERATURE (WBGT) USING EITHER A BOTTLE THERMOMETER OR THE WBGT APPARATUS WHICH STUDENTS LEARN TO ASSEMBLE. THE COMPETENCY-BASED LESSONS ARE DESIGNED TO AUGMENT EXISTING COURSE MATERIALS IN THE ENVIRONMENTAL HEALTH SCIENCES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007118

PUBLICATION DATE: 81

TITLE: COLLECTING STREAM SAMPLES FOR WATER QUALITY. VOCATIONAL EDUCATION TRAINING IN ENVIRONMENTAL HEALTH SCIENCES - MODULE 16.

DESCRIPTOR: ALLIED HEALTH OCCUPATIONS; CHEMICAL ANALYSIS; COMPETENCY BASED EDUCATION; ENVIRONMENTAL EDUCATION; *ENVIRONMENTAL TECHNICIANS; *LABORATORY PROCEDURES; *POST SECONDARY EDUCATION; SAMPLING; SCIENCE EDUCATION; *TECHNICAL EDUCATION; *VOCATIONAL EDUCATION; *WATER POLLUTION; WATER RESOURCES; *ENVIRONMENTAL HEALTH

DESCRIPTIVE NOTE: 38P.

ABSTRACT: PRESENTED ARE THREE LESSONS WHICH COVER THE COLLECTION OF STREAM SAMPLES FOR VARIOUS WATER QUALITY ANALYSES. UPON COMPLETING THE COMPETENCY-BASED MODULE, A STUDENT WILL BE ABLE TO: (1) IDENTIFY EQUIPMENT AND REAGENTS NEEDED FOR WATER ANALYSES; (2) PREPARE SAMPLING BOTTLES; AND (3) SELECT SUITABLE SAMPLE LOCATIONS AND TAKE GRAB SAMPLES. THE LEARNING UNIT IS SELF-INSTRUCTED AND INTENDED TO SUPPLEMENT EXISTING ENVIRONMENTAL HEALTH COURSE MATERIALS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007119

PUBLICATION DATE: 81

TITLE: PERFORMING TITRATION ANALYSES FOR WATER QUALITY.

VOCATIONAL EDUCATION TRAINING IN ENVIRONMENTAL HEALTH SCIENCES - MODULE 17.

DESCRIPTOR: ALLIED HEALTH OCCUPATIONS; *CHEMICAL ANALYSIS; COMPETENCY BASED EDUCATION; ENVIRONMENTAL EDUCATION; ENVIRONMENTAL TECHNICIANS; *LABORATORY PROCEDURES; *POST SECONDARY EDUCATION; SCIENCE EDUCATION; *TECHNICAL EDUCATION; *VOCATIONAL EDUCATION; *WATER POLLUTION; WATER RESOURCES; *ENVIRONMENTAL HEALTH; TITRATION

DESCRIPTIVE NOTE: 36P.

ABSTRACT: THE THREE SELF-INSTRUCTED LESSONS PRESENTED ARE DESIGNED TO HELP STUDENTS LEARN HOW TO PERFORM A CHEMICAL TEST FOR WATER QUALITY USING THE TITRATION TECHNIQUE. THE TEST FOR DISSOLVED OXYGEN SERVES AS AN EXAMPLE TO PROVIDE EXPERIENCE WITH TITRATING APPARATUS, REAGENTS AND OTHER REQUIRED LABORATORY SUPPLIES. INTENDED TO SUPPLEMENT EXISTING ENVIRONMENTAL HEALTH COURSE MATERIALS, THE MODULE FOLLOWS A COMPETENCY-BASED PERFORMANCE-ORIENTED FORMAT.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007120

PUBLICATION DATE: 81

TITLE: USING AN ELECTRIC SINGLE PAN ANALYTICAL BALANCE. VOCATIONAL EDUCATION TRAINING IN ENVIRONMENTAL HEALTH SCIENCES - MODULE 18.

DESCRIPTOR: ALLIED HEALTH OCCUPATIONS; COMPETENCY BASED EDUCATION; ENVIRONMENTAL EDUCATION; ENVIRONMENTAL TECHNICIANS; *LABORATORY EQUIPMENT; *MEASUREMENT EQUIPMENT; *POST SECONDARY EDUCATION; *SCIENCE EDUCATION; *SCIENCE EQUIPMENT; TECHNICAL EDUCATION; VOCATIONAL EDUCATION; *BALANCES; ENVIRONMENTAL HEALTH

DESCRIPTIVE NOTE: 28P.

ABSTRACT: PRESENTED IS A SELF-INSTRUCTED MODULE INTENDED TO HELP STUDENTS LEARN HOW TO OPERATE AN ELECTRIC SINGLE PAN BALANCE. THE THREE COMPETENCY-BASED LESSONS PROVIDED ARE DESIGNED TO SUPPLEMENT ENVIRONMENTAL HEALTH COURSE MATERIALS WHICH CURRENTLY EXIST.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007121

PUBLICATION DATE: 81

TITLE: PREPARING DATA FOR ANALYSIS. VOCATIONAL EDUCATION TRAINING IN ENVIRONMENTAL HEALTH SCIENCES - MODULE 19.

DESCRIPTOR: ALLIED HEALTH OCCUPATIONS; COMPETENCY BASED EDUCATION; *DATA ANALYSIS; ENVIRONMENTAL EDUCATION; ENVIRONMENTAL TECHNICIANS; *GRAPHS; MATHEMATICS EDUCATION;

*POST SECONDARY EDUCATION; SCIENCE EDUCATION; *TABLES (DATA); *TECHNICAL EDUCATION; *VOCATIONAL EDUCATION; ENVIRONMENTAL HEALTH

DESCRIPTIVE NOTE: 45P.

ABSTRACT: ORGANIZED NUMERICAL DATA ARE ESSENTIAL TO SUCCESSFUL SCIENCE AND TECHNOLOGY PROGRAMS. ACCORDINGLY, THIS MODULE CONTAINS THREE SELF-INSTRUCTED LESSONS INTENDED TO ASSIST POSTSECONDARY STUDENTS IN LEARNING HOW TO CONSTRUCT VARIOUS TYPES OF TABLES, GRAPHS AND CHARTS USING ENVIRONMENTAL HEALTH DATA. DESIGNED ACCORDING TO A COMPETENCY-BASED FORMAT, THE LEARNING UNIT HAS BEEN PRODUCED TO SUPPLEMENT EXISTING COURSE MATERIALS IN ENVIRONMENTAL HEALTH.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007122

PUBLICATION DATE: 81

TITLE: USING MODULES IN AN ENVIRONMENTAL HEALTH TRAINING PROGRAM. VOCATIONAL EDUCATION TRAINING IN ENVIRONMENTAL HEALTH SCIENCES - MODULE 20.

DESCRIPTOR: *ALLIED HEALTH OCCUPATIONS; *COMPETENCY BASED EDUCATION; ENVIRONMENTAL EDUCATION; ENVIRONMENTAL TECHNICIANS; *INSTRUCTIONAL MATERIALS; *POST SECONDARY EDUCATION; SCIENCE EDUCATION; TEACHING METHODS; *TECHNICAL EDUCATION; *VOCATIONAL EDUCATION; *ENVIRONMENTAL HEALTH

DESCRIPTIVE NOTE: 36P.

ABSTRACT: CONSUMER DYNAMICS, INC., DEVELOPED A SERIES OF 25 PERFORMANCE-ORIENTED, COMPETENCY-BASED MODULES TO AUGMENT EXISTING POSTSECONDARY COURSE MATERIALS IN THE ENVIRONMENTAL HEALTH SCIENCES. REVIEWED IN THIS PUBLICATION ARE THE CONTENT AND OBJECTIVES OF EACH LEARNING UNIT PRODUCED. ALSO DESCRIBED ARE THE GENERAL PURPOSE AND TARGET AUDIENCE OF THE SERIES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007123

PUBLICATION DATE: 81

TITLE: OPERATING GAS-ABSORBING EQUIPMENT. VOCATIONAL EDUCATION TRAINING IN ENVIRONMENTAL HEALTH SCIENCES - MODULE 21.

DESCRIPTOR: *AIR POLLUTION; *ALLIED HEALTH OCCUPATIONS; COMPETENCY BASED EDUCATION; ENVIRONMENTAL EDUCATION; ENVIRONMENTAL TECHNICIANS; *LABORATORY EQUIPMENT; *POST SECONDARY EDUCATION; SAMPLING; SCIENCE EDUCATION; *TECHNICAL EDUCATION; *VOCATIONAL EDUCATION; WORK ENVIRONMENT; *ENVIRONMENTAL HEALTH; OCCUPATIONAL HEALTH

DESCRIPTIVE NOTE: 35P.

ABSTRACT: STUDENTS WHO COMPLETE THE THREE SELF-INSTRUCTED LESSONS PRESENTED SHOULD BE ABLE TO USE A CALIBRATED GAS-ABSORBING SAMPLING TRAIN TO OBTAIN AIR SAMPLES FOR ANALYSIS OF A SPECIFIC GAS OR VAPOR. THE COMPETENCY-BASED MODULE IS INTENDED TO SUPPLEMENT EXISTING COURSE MATERIALS IN THE ENVIRONMENTAL HEALTH SCIENCES. PROCEDURES COVERED APPLY TO THE DETERMINATION OF HAZARDOUS LEVELS OF AIRBORNE CONTAMINANTS IN EITHER WORKPLACE OR ENVIRONMENTAL SETTINGS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007124

PUBLICATION DATE: 81

TITLE: USING A STEREO MICROSCOPE. VOCATIONAL EDUCATION TRAINING IN ENVIRONMENTAL HEALTH SCIENCES - MODULE 22.

DESCRIPTOR: *ALLIED HEALTH OCCUPATIONS; BIOLOGY; COMPETENCY BASED EDUCATION; ENTOMOLOGY; ENVIRONMENTAL EDUCATION; ENVIRONMENTAL TECHNICIANS; *LABORATORY EQUIPMENT; LABORATORY PROCEDURES; *MICROSCOPES; *POST SECONDARY EDUCATION; SCIENCE EDUCATION; *TECHNICAL EDUCATION; *VOCATIONAL EDUCATION; *ENVIRONMENTAL HEALTH

DESCRIPTIVE NOTE: 25P.

ABSTRACT: THREE LESSONS DESIGNED TO HELP STUDENTS CORRECTLY USE A STEREO MICROSCOPE COMPRISE THIS SELF-INSTRUCTED LEARNING MODULE. ONCE THE BASIC FEATURES OF THE MICROSCOPE AND ITS OPERATION ARE COVERED, STUDENTS PRACTICE THEIR SKILLS BY CLASSIFYING INSECTS ON THE BASIS OF BODY STRUCTURE. THE LEARNING UNIT IS INTENDED TO AUGMENT EXISTING COURSE MATERIALS IN ENVIRONMENTAL HEALTH.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007125

PUBLICATION DATE: 81

TITLE: MEASURING AIRFLOW IN LOCAL EXHAUST VENTILATION SYSTEMS. VOCATIONAL EDUCATION TRAINING IN ENVIRONMENTAL HEALTH SCIENCES - MODULE 23.

DESCRIPTOR: *AIR FLOW; AIR POLLUTION; *ALLIED HEALTH OCCUPATIONS; ENVIRONMENTAL EDUCATION; ENVIRONMENTAL TECHNICIANS; *MEASUREMENT TECHNIQUES; *POST SECONDARY EDUCATION; SCIENCE EDUCATION; *TECHNICAL EDUCATION; VENTILATION; *VOCATIONAL EDUCATION; WORK ENVIRONMENT; ENVIRONMENTAL HEALTH; *OCCUPATIONAL HEALTH

DESCRIPTIVE NOTE: 35P.

ABSTRACT: PERFORMING AIRFLOW MEASUREMENTS IN EXHAUST VENTILATION SYSTEMS IS A NECESSARY ASPECT OF EVALUATING HOW

WELL POTENTIALLY HARMFUL AIRBORNE CONTAMINANTS ARE REMOVED FROM THE POINT AT WHICH THEY ARE GENERATED. DESCRIBED IN THIS LEARNING MODULE ARE PROCEDURES FOR MEASURING AIR VELOCITY IN ENCLOSED HOODS, IN SLOT HOODS AND IN THE DUCTWORK OF VENTILATION SYSTEMS. THE SWINGING VANE ANEMOMETER IS THE DEVICE USED IN THE THREE SELF-INSTRUCTED LESSONS. INTENDED TO SUPPLEMENT EXISTING MATERIALS FOR ENVIRONMENTAL HEALTH COURSES, THE MODULE EMPLOYS A COMPETENCY-BASED FORMAT.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007126

PUBLICATION DATE: 81

TITLE: CALIBRATING A RESPIRABLE DUST SAMPLING DEVICE. VOCATIONAL EDUCATION TRAINING IN ENVIRONMENTAL HEALTH SCIENCES - MODULE 24.

DESCRIPTOR: *AIR POLLUTION; *ALLIED HEALTH OCCUPATIONS; COMPETENCY BASED EDUCATION; ENVIRONMENTAL EDUCATION; ENVIRONMENTAL TECHNICIANS; *MEASUREMENT EQUIPMENT; OCCUPATIONAL DISEASES; *POST SECONDARY EDUCATION; SAMPLING; SCIENCE EDUCATION; *TECHNICAL EDUCATION; *VOCATIONAL EDUCATION; WORK ENVIRONMENT; DUST; ENVIRONMENTAL HEALTH; *OCCUPATIONAL HEALTH

DESCRIPTIVE NOTE: 33P.

ABSTRACT: PRESENTED ARE THREE LESSONS DESIGNED TO ACQUAINT STUDENTS WITH THE CYCLONE RESPIRABLE DUST SAMPLER USED IN INDUSTRIAL WORK SETTINGS. THE UNIT IS INTENDED TO AUGMENT EXISTING COURSE MATERIALS IN THE ENVIRONMENTAL HEALTH SCIENCES. LEARNERS WHO COMPLETE THE SELF-INSTRUCTED MODULE SHOULD BE ABLE TO: (1) IDENTIFY THE PARTS AND FUNCTIONS OF THE SAMPLER; (2) CLEAN THE CYCLONE; AND (3) PREPARE AND CALIBRATE A RESPIRABLE DUST SAMPLING TRAIN.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007127

PUBLICATION DATE: 81

TITLE: COMMUNICATING WITH ENVIRONMENTAL HEALTH STAFF. VOCATIONAL EDUCATION TRAINING IN ENVIRONMENTAL HEALTH SCIENCES - MODULE 23.

DESCRIPTOR: *ALLIED HEALTH OCCUPATIONS; *COMMUNICATION SKILLS; COMPETENCY BASED EDUCATION; ENVIRONMENTAL EDUCATION; ENVIRONMENTAL TECHNICIANS; HUMAN RELATIONS; *POST SECONDARY EDUCATION; SCIENCE EDUCATION; *TECHNICAL EDUCATION; *VOCATIONAL EDUCATION; *WORK ATTITUDES; *ENVIRONMENTAL HEALTH

DESCRIPTIVE NOTE: 24P.

ABSTRACT: STUDENTS WHO COMPLETE THIS SELF-INSTRUCTED MODULE SHOULD DEVELOP SKILLS FOR EFFECTIVE COMMUNICATIONS WITH OTHER ENVIRONMENTAL HEALTH STAFF. THE LEARNING UNIT, WHICH FOLLOWS A COMPETENCY-BASED FORMAT, IS INTENDED TO AUGMENT EXISTING ENVIRONMENTAL HEALTH COURSE MATERIALS. AMONG THE TOPICS ADDRESSED ARE POSITIVE WORK ATTITUDES, EFFECTIVE COMMUNICATION TECHNIQUES, AND STEPS IN RESOLVING WORK-RELATED COMMUNICATION PROBLEMS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007146

PUBLICATION DATE: MAR 81

TITLE: HOW TO DETERMINE THE STRATEGIC POTENTIAL OF COMPUTER-BASED INSTRUCTION IN YOUR TRAINING/EDUCATION DEPARTMENT.

PERSONAL AUTHOR: SVENSON, RAYNOLD A.

DESCRIPTOR: ADMINISTRATORS; ADULT EDUCATION; AUTOINSTRUCTIONAL AIDS; *COMPUTER ASSISTED INSTRUCTION; COMPUTER MANAGED INSTRUCTION; *COST EFFECTIVENESS; *EDUCATIONAL ADMINISTRATION; *EDUCATIONAL PLANNING; HIGHER EDUCATION; POST SECONDARY EDUCATION; TEACHING METHODS; *TRAINING; TRAINING METHODS

DESCRIPTIVE NOTE: 36-38, 42P.

ABSTRACT: OUTLINES A STUDY PROCEDURE FOR DIRECTORS, ADMINISTRATORS, AND MANAGERS OF LARGE-SCALE TRAINING OR EDUCATION FUNCTIONS TO DETERMINE IF COMPUTER-BASED INSTRUCTION IS COST EFFECTIVE FOR THEIR ORGANIZATION. PLAN INCLUDES DATA GATHERING, ALTERNATIVES, RECOMMENDATIONS, AND IMPLEMENTATIONS.

AVAILABILITY: TECHNOLOGICAL HORIZONS IN EDUCATION; VB N3

IRIS ACCESSION NUMBER: EW007147

PUBLICATION DATE: MAR 81

TITLE: THE GOLDEN RULE AND TEN COMMANDMENTS OF COMPUTER BASED EDUCATION (CBE).

PERSONAL AUTHOR: AIKEN, ROBERT H.

DESCRIPTOR: COMPUTER ASSISTED INSTRUCTION; *COMPUTER ORIENTED PROGRAMS; *GUIDELINES; HIGHER EDUCATION; *MICROCOMPUTERS; POST SECONDARY EDUCATION; SECONDARY EDUCATION; TEACHING METHODS

DESCRIPTIVE NOTE: 39-42P.

ABSTRACT: EXAMINES TEN FACTORS THAT PEOPLE SELECTING AND USING COMPUTERS IN THE CLASSROOM SHOULD CONSIDER IF THE SYSTEM IS TO BE MOST EFFECTIVELY UTILIZED AS A TEACHING TOOL. TOPICS INCLUDE PERSONNEL, MATERIALS, SERVICES, AND

EQUIPMENT.

AVAILABILITY: TECHNOLOGICAL HORIZONS IN EDUCATION; VB N3

IRIS ACCESSION NUMBER: EW007140

PUBLICATION DATE: MAR 81

TITLE: APPROACHES TO CBI EFFECTIVENESS: ACTIVITY IN THE BELL SYSTEM.

PERSONAL AUTHOR: DAVIS, RICHARD W.

DESCRIPTOR: *COMPUTER ASSISTED INSTRUCTION; *COMPUTER ORIENTED PROGRAMS; *EDUCATIONAL TECHNOLOGY; HIGHER EDUCATION; POST SECONDARY EDUCATION; TEACHING METHODS; *TRAINING; TRAINING METHODS; *TRAINING OBJECTIVES

DESCRIPTIVE NOTE: 43-45P.

ABSTRACT: DISCUSSES HOW THE BELL SYSTEM CENTER FOR TECHNICAL EDUCATION USES COMPUTERIZED INSTRUCTION TO MEET FIVE GOALS.

AVAILABILITY: TECHNOLOGICAL HORIZONS IN EDUCATION; VB N3

IRIS ACCESSION NUMBER: EW007152

PUBLICATION DATE: MAR 81

TITLE: WE JUST FINISHED TOMORROW'S MEETING.

PERSONAL AUTHOR: HECKMEN, DALE M.

DESCRIPTOR: ADVISORY COMMITTEES; CONFERENCES; COST EFFECTIVENESS; HIGHER EDUCATION; *MEETINGS; POST SECONDARY EDUCATION; *TELECONFERENCING; *TELEPHONE COMMUNICATIONS SYSTEMS; TELEVISION; *PICTUREPHONE MEETING SERVICE

DESCRIPTIVE NOTE: 54-55P.

ABSTRACT: DESCRIBES AN ADVISORY COMMITTEE MEETING IN WHICH MEMBERS FROM ACROSS THE COUNTRY MET VIA THE TELEPHONE COMPANY'S PICTUREPHONE MEETING SERVICE. OUTLINES THE PROCEDURES, BENEFITS AND MEMBERS' REACTIONS TO THEIR FIRST ELECTRONIC GATHERING.

AVAILABILITY: TECHNOLOGICAL HORIZONS IN EDUCATION; VB N3

IRIS ACCESSION NUMBER: EW007153

PUBLICATION DATE: MAY 81

TITLE: THE VIDEODISC: A PICTURE BOOK IN THE ROUND.

PERSONAL AUTHOR: LONG, HARVEY S.

DESCRIPTOR: AUDIOVISUAL AIDS; *BOOKS; EDUCATIONAL

EQUIPMENT; *EDUCATIONAL TECHNOLOGY; ELEMENTARY SECONDARY EDUCATION; HIGHER EDUCATION; *INSTRUCTIONAL INNOVATION; INSTRUCTIONAL MATERIALS; TEACHING METHODS; TECHNOLOGY; *VIDEODISC RECORDINGS

DESCRIPTIVE NOTE: 39-42P.

ABSTRACT: DISCUSSES SEVEN REASONS WHY BOOKS HAVE BEEN SUCCESSFUL AS AN EDUCATIONAL RESOURCE SHARING MEDIUM. IT IS CONCLUDED THAT AN INTER-ACTIVE OPTICAL VIDEODISC SHARES MANY OF THE ATTRIBUTES OF BOOKS BUT THAT ITS SUPERIOR CAPACITY AND FUNCTION CAN EXTEND THE BOOK TO OFFER UNIQUE INSTRUCTIONAL CAPABILITY.

AVAILABILITY: TECHNOLOGICAL HORIZONS IN EDUCATION; VB N4

IRIS ACCESSION NUMBER: EW007155

PUBLICATION DATE: MAY 81

TITLE: SYNERGISTIC EDUCATIONAL PLANNING.

PERSONAL AUTHOR: SAKOVICH, VLADIMIR

DESCRIPTOR: ADMINISTRATOR ROLE; *EDUCATIONAL ASSESSMENT; *EDUCATIONAL CHANGE; *EDUCATIONAL PLANNING; ELEMENTARY SECONDARY EDUCATION; HIGHER EDUCATION; INSTRUCTIONAL SYSTEMS; *SYSTEMS APPROACH; TEACHER ROLE; TEACHING METHODS

DESCRIPTIVE NOTE: 45-47P.

ABSTRACT: PROPOSES A SYSTEMS APPROACH FOR EDUCATIONAL ORGANIZATION AND PLANNING COMPRISED OF SIX PROCESSES BASED ON OPEN-SYSTEMS THEORY. THIS APPROACH SETS UP THE STRUCTURE FOR DISCOVERING WHAT TEACHING STYLES BEST MANAGE CERTAIN LEARNING STYLES BY USING PARTICULAR METHODS.

AVAILABILITY: TECHNOLOGICAL HORIZONS IN EDUCATION; VB N4

IRIS ACCESSION NUMBER: EW007156

PUBLICATION DATE: MAY 81

TITLE: A CENTRAL COMMUNICATION NETWORK IN CONTINUING STUDIES FOR A UNIVERSITY SYSTEM: A NEEDS ASSESSMENT.

PERSONAL AUTHOR: PRISK, DENNIS P.

DESCRIPTOR: *COMPUTERS; *CONTINUING EDUCATION; *COST EFFECTIVENESS; DATA PROCESSING; EDUCATIONAL FINANCE; HIGHER EDUCATION; INFORMATION NETWORKS; *NEEDS ASSESSMENT; *NETWORKS; SHARED SERVICES; *INDIANA UNIVERSITY

DESCRIPTIVE NOTE: 48-51P.

ABSTRACT: RESULTS OF A COMPUTER NEEDS ASSESSMENT STUDY BY AND FOR THE INDIANA UNIVERSITY SCHOOL OF CONTINUING STUDIES ARE PRESENTED. RECOMMENDATIONS FOR COST EFFECTIVENESS SUGGEST STARTING WITH INDIVIDUAL SMALL COMPUTERS AND BUILDING TOWARDS A LARGER SYSTEM.

AVAILABILITY: TECHNOLOGICAL HORIZONS IN EDUCATION; VB N4

IRIS ACCESSION NUMBER: EW007137

PUBLICATION DATE: MAY 81

TITLE: INDEPENDENT STUDY COURSES CAN BE VERY COST EFFECTIVE.

PERSONAL AUTHOR: VANDER HAEGHEN, PETER

DESCRIPTOR: AUDIOVISUAL AIDS; AUDIOVISUAL INSTRUCTION; *AUTOINSTRUCTIONAL AIDS; *COST EFFECTIVENESS; *EDUCATIONAL MEDIA; HIGHER EDUCATION; *INDEPENDENT STUDY; *INSTRUCTIONAL MATERIALS; *TELECOURSES

DESCRIPTIVE NOTE: 52-53, 59P.

ABSTRACT: DISCUSSES REASONS WHY COLLEGES AND UNIVERSITIES HAVE NOT SUPPORTED THE PRODUCTION OF MEDIA MATERIALS FOR THEIR INSTRUCTIONAL PROGRAMS AND PROPOSES A COST EFFECTIVE APPROACH FOR OFFERING QUALITY INDEPENDENT STUDY COURSES (TELECOURSES, RADIO/AUDIO COURSES, TEXT/STUDY GUIDES WITH AUDIO SUPPORT).

AVAILABILITY: TECHNOLOGICAL HORIZONS IN EDUCATION; VB N4

IRIS ACCESSION NUMBER: EW007150

PUBLICATION DATE: MAY 81

TITLE: WORKING WITH TELECOURSES: A COOPERATIVE TV PROJECT IN INDIANA.

PERSONAL AUTHOR: CRUEBEL, JEROLD

DESCRIPTOR: AUDIOVISUAL INSTRUCTION; EDUCATIONAL TELEVISION; *EXTENSION EDUCATION; HIGHER EDUCATION; POST SECONDARY EDUCATION; STUDENT ATTITUDES; *STUDENT CHARACTERISTICS; SURVEYS; TEACHING METHODS; *TELECOURSES; *INDIANA

DESCRIPTIVE NOTE: 56-59P.

ABSTRACT: SUMMARIZES SURVEY FINDINGS AND CONCLUSIONS ABOUT STUDENTS (N=46) WHO ENROLLED FOR CREDIT IN TWO TELECOURSES OFFERED DURING THE 1980 FALL SEMESTER BY INDIANA UNIVERSITY.

AVAILABILITY: TECHNOLOGICAL HORIZONS IN EDUCATION; VB N4

IRIS ACCESSION NUMBER: EW007159

PUBLICATION DATE: SEP 81

TITLE: HOW TO SET UP AN ELECTRONIC BULLETIN BOARD.

PERSONAL AUTHOR: LUKAS, TERRENCE

DESCRIPTOR: *COMPUTER ORIENTED PROGRAMS; *COMPUTER PROGRAMS; COMPUTERS; *DISPLAY SYSTEMS; ELECTRONIC EQUIPMENT; HIGHER EDUCATION; *INFORMATION DISSEMINATION; *INFORMATION SERVICES; *INFORMATION SYSTEMS; MICROCOMPUTERS

DESCRIPTIVE NOTE: 50-53P.

ABSTRACT: DESCRIBES A VERSATILE, INEXPENSIVE INFORMATION SYSTEM USING MICROCOMPUTERS AND TELEVISION SETS WHICH ENABLES INDIANA UNIVERSITY NORTHWEST TO RELAY INFORMATION FOR STUDENTS TO DIFFERENT SITES SIMULTANEOUSLY AND TO UPDATE INFORMATION QUICKLY AND EASILY. ILLUSTRATES HOW TO SET UP THE HARDWARE, DISCUSSES PROGRAMMING, AND INCLUDES THE ACTUAL PROGRAM USED.

AVAILABILITY: TECHNOLOGICAL HORIZONS IN EDUCATION; VB N5

IRIS ACCESSION NUMBER: EW007160

PUBLICATION DATE: SEP 81

TITLE: STATE SUPPORT FOR COMPUTER DISSEMINATION: A REASSESSMENT OF CALIFORNIA'S PUBLIC NETWORK FOR INSTRUCTIONAL DEVELOPMENT.

PERSONAL AUTHOR: ANDERSON, JOHN

DESCRIPTOR: *COMPUTER ORIENTED PROGRAMS; COST EFFECTIVENESS; *FINANCIAL SUPPORT; *INFORMATION DISSEMINATION; *INFORMATION NETWORKS; INFORMATION SERVICES; INSTRUCTIONAL DEVELOPMENT; *INSTRUCTIONAL IMPROVEMENT; POST SECONDARY EDUCATION; CALIFORNIA

DESCRIPTIVE NOTE: 54-56, 66P.

ABSTRACT: THE CALIFORNIA COMPUTER NETWORK FOR INSTRUCTIONAL DEVELOPMENT COST-EFFECTIVELY LINKS OVER 100 CAMPUSES IN AN EFFORT TO HELP FACULTY AND ADMINISTRATORS IN POSTSECONDARY EDUCATION KEEP UP WITH AND PREVENT DUPLICATION OF CURRENT STATE-FUNDED PROGRAMS FOR TEACHING IMPROVEMENT. SUMMARIZES THE NETWORK'S HISTORY, FUNDING, EVALUATION FINDINGS AND PROBLEMS.

AVAILABILITY: TECHNOLOGICAL HORIZONS IN EDUCATION; VB N5

IRIS ACCESSION NUMBER: EW007162

PUBLICATION DATE: SEP 81

TITLE: INTERFACING FOR ECONOMICAL DATA GATHERING AND PROCESSING.

DESCRIPTOR: AUTOMATION; *BIOHEDICAL EQUIPMENT; *COMPUTER ORIENTED PROGRAMS; HIGHER EDUCATION; *JOB SIMPLIFICATION; LABORATORY EQUIPMENT; *LABORATORY TECHNOLOGY; *MICROCOMPUTERS; POST SECONDARY EDUCATION; SCIENCE EDUCATION; SCIENCE EQUIPMENT; SCIENCE LABORATORIES; SCIENTIFIC RESEARCH

DESCRIPTIVE NOTE: 59-60P.

ABSTRACT: BY INTERFACING A BIOTRAN II COUNTING DEVICE WITH AN APPLE II COMPUTER, BIOLOGISTS IN A BIOMEDICAL LABORATORY INCREASED ACCURACY AND SPEED OVER MANUAL LOGGING OF BIOTRAN READINGS. SUGGESTS THAT OTHERS INTERFACE SMALL COMPUTERS TO COMPUTER READABLE DEVICES AS A COST-EFFECTIVE APPROACH. OUTLINES NECESSARY STEPS.

AVAILABILITY: TECHNOLOGICAL HORIZONS IN EDUCATION; VB N5

IRIS ACCESSION NUMBER: EW007163

PUBLICATION DATE: SEP 81

TITLE: NETWORKING: WHAT ARE THE ALTERNATIVE SYSTEMS.

PERSONAL AUTHOR: CONNELL, CASSIE C.

DESCRIPTOR: *COMMUNICATIONS; COMPUTER SCIENCE; *COMPUTERS; EDUCATIONAL TECHNOLOGY; HIGHER EDUCATION; INFORMATION DISSEMINATION; *INFORMATION NETWORKS; INFORMATION SCIENCE; *INFORMATION SYSTEMS; *NETWORKS; POST SECONDARY EDUCATION

DESCRIPTIVE NOTE: 61-63P.

ABSTRACT: EDUCATIONAL INSTITUTIONS USE NETWORKS TO CONNECT DEVICES TO A COMMON LINE OR CENTRAL COURSE TO SHAPE RESOURCES. PRESENTED IS INFORMATION FOR SELECTING THE BEST NETWORK SYSTEM FOR PRESENT AND FUTURE NEEDS. DISCUSSES CONFIGURATION OF LINE; TRANSMISSION METHODS, RATES, AND LINES; CABLE LENGTH; PRICE; AND INTERFACING.

AVAILABILITY: TECHNOLOGICAL HORIZONS IN EDUCATION; VB N5

IRIS ACCESSION NUMBER: EW007164

PUBLICATION DATE: SEP 81

TITLE: THE PRESIDENT'S REPORT ON SCIENCE AND ENGINEERING EDUCATION.

PERSONAL AUTHOR: BABB, PATRICIA

DESCRIPTOR: *EDUCATIONAL IMPROVEMENT; ELEMENTARY SECONDARY EDUCATION; *ENGINEERING EDUCATION; FEDERAL PROGRAMS; *GOVERNMENT ROLE; HIGHER EDUCATION; MATHEMATICS CURRICULUM; *MATHEMATICS EDUCATION; POST SECONDARY EDUCATION; SCIENCE CAREERS; SCIENCE CURRICULUM; *SCIENCE EDUCATION; *SCIENTIFIC LITERACY; TECHNOLOGICAL ADVANCEMENT; TECHNOLOGY; NATIONAL SCIENCE FOUNDATION

DESCRIPTIVE NOTE: 64-66P.

ABSTRACT: THE DEPARTMENT OF EDUCATION AND THE NATIONAL SCIENCE FOUNDATION REPORT THAT PRE-COLLEGE SCIENCE, MATHEMATICS, AND ENGINEERING EDUCATION ARE ADEQUATE FOR STUDENTS WHO ARE CAREER ORIENTED IN THOSE FIELDS BUT INADEQUATE FOR THE REMAINING STUDENTS. PROFESSIONAL EDUCATION IN THESE SAME AREAS IS ALSO INADEQUATE. DISCUSSES REASONS, PROBLEMS AND POSSIBLE SOLUTIONS.

AVAILABILITY: TECHNOLOGICAL HORIZONS IN EDUCATION; VB N5

IRIS ACCESSION NUMBER: EW007165

PUBLICATION DATE: JUL 81

TITLE: EPA'S NEW RESEARCH CONTROLS: PROBLEMS REMAIN.

DESCRIPTOR: *ENVIRONMENTAL PROTECTION AGENCY; *EVALUATION; GUIDELINES; *PLANNING; PROCEDURES; PROGRAM EVALUATION; *QUALITY CONTROL; *RECOMMENDATIONS; *RESEARCH

DESCRIPTIVE NOTE: 30P.

ABSTRACT: THIS REPORT REVIEWS THE 1970 RESEARCH CONTROL PROCEDURES OF THE U.S. ENVIRONMENTAL PROTECTION AGENCY. IN ADDITION, THIS REPORT REVIEWS THE DEGREE TO WHICH USEPA TOOK ACTION TO IMPLEMENT THESE NEW RESEARCH CONTROLS AND HOW THESE NEW PROCEDURES RESOLVED PREVIOUS RESEARCH PLANNING AND MANAGEMENT PROBLEMS. GENERAL IMPROVEMENTS ARE REPORTED, BUT SEVERAL RECOMMENDATIONS ARE INCLUDED FOR FURTHER IMPROVEMENT.

AVAILABILITY: U.S. GENERAL ACCOUNTING OFFICE, DOCUMENT HANDLING AND INFORMATION SERVICES FACILITY, P. O. BOX 6015, GAITHERSBURG, MD 20760

IRIS ACCESSION NUMBER: EW007166

PUBLICATION DATE: SEP 80

TITLE: ORGANIC ANALYSES IN WATER QUALITY CONTROL PROGRAMS - TRAINING MANUAL.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICAL ANALYSIS; DRINKING WATER; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *ORGANIC COMPOUNDS; *ORGANIC CHEMISTRY; *POST SECONDARY EDUCATION; REGULATIONS; *TRAINING MANUALS; WATER ANALYSIS; *WATER QUALITY

DESCRIPTIVE NOTE: 190P. **PRICE:** \$1.00 PER DOCUMENT PLUS \$.03 PER PAGE.

ABSTRACT: THIS TRAINING MANUAL PRESENTS COURSE MATERIAL ON HOW TO PERFORM ANALYSES FOR SELECTED ORGANIC POLLUTANTS LISTED AS APPROVED IN THE FEDERAL REGISTER. TOPICS INCLUDE: NPDES METHODOLOGY; LABORATORY SAFETY; DISSOLVED OXYGEN; FIVE-DAY BIOCHEMICAL OXYGEN DEMAND; TOTAL ORGANIC CARBON; OIL AND GREASE; SURFACTANTS; TOTAL KJELDAHL AND ORGANIC NITROGEN; PHENOL; POLYCHLORINATED BIPHENYLS, PESTICIDES; AND CONTROL OF ANALYTICAL PERFORMANCE. THIS COURSE IS DESIGNED FOR CHEMISTS AND TECHNICIANS WITH LITTLE OR NO EXPERIENCE IN ORGANIC ANALYSES FOR NPDES AND NPDWR REGULATIONS.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007167

PUBLICATION DATE: DEC 79

TITLE: PESTICIDE RESIDUE ANALYSIS IN WATER - TRAINING MANUAL.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; CHROMATOGRAPHY;
*INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES;
*PESTICIDES; *POST SECONDARY EDUCATION; RESIDUES; SAMPLING;
TESTING; *TRAINING MANUALS; *WATER QUALITY

DESCRIPTIVE NOTE: 183P. PRICE: \$1.00 PER DOCUMENT PLUS
\$.03 PER PAGE.

ABSTRACT: THIS TRAINING MANUAL PRESENTS COURSE MATERIALS ON
RESIDUE ANALYSIS WITH EMPHASIS ON LABORATORY OPERATIONS, AND
PROGRESSES INTO ADVANCE USE OF GAS CHROMATOGRAPHIC SYSTEMS.
THIS COURSE IS DESIGNED FOR CHEMISTS AND TECHNICIANS WITH
BASIC LABORATORY SKILLS AND LITTLE OR NO EXPERIENCE IN
PESTICIDE RESIDUE ANALYSIS.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, 1200
CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007168

PUBLICATION DATE: MAY 79

TITLE: INTRODUCTION TO INSTRUMENTAL ANALYSIS OF WATER
POLLUTANTS - TRAINING MANUAL.

DESCRIPTOR: *CHEMISTRY; CHROMATOGRAPHY; *INSTRUMENTATION;
*LABORATORY EQUIPMENT; *LABORATORY PROCEDURES; POST
SECONDARY EDUCATION; *SCIENCE EDUCATION; SPECTROSCOPY;
*WATER POLLUTION; ANALYTICAL CHEMISTRY; ANALYTICAL METHODS;
*WATER QUALITY

DESCRIPTIVE NOTE: 190P. PRICE: \$1.00 PER DOCUMENT PLUS
\$.03 PER PAGE.

ABSTRACT: THIS COURSE IS DESIGNED FOR THOSE REQUIRING AN
INTRODUCTION TO INSTRUMENTS COMMONLY USED IN WATER POLLUTION
ANALYSES. EXAMPLES ARE: PH, CONDUCTIVITY, DISSOLVED OXYGEN
METERS, SPECTROPHOTOMETERS, TURBIDIMETERS, CARBON ANALYZER,
AND GAS CHROMATOGRAPHS. STUDENTS SHOULD HAVE A BASIC
KNOWLEDGE OF ANALYTICAL CHEMISTRY.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, 1200
CHAMBERS RD. - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007169

PUBLICATION DATE: JUL 79

TITLE: ANALYTICAL METHODS FOR TRACE METALS - TRAINING
MANUAL.

DESCRIPTOR: *DATA ANALYSIS; *LABORATORY PROCEDURES; *POST
SECONDARY EDUCATION; WATER POLLUTION; WATER RESOURCES;

ACTIVATED SLUDGE; ANALYTICAL METHODS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 70P. PRICE: \$1.00 PER DOCUMENT PLUS
\$.03 PER PAGE.

ABSTRACT: THIS TRAINING MANUAL PRESENTS MATERIAL ON THE
THEORETICAL CONCEPTS INVOLVED IN THE METHODS LISTED IN THE
FEDERAL REGISTER AS APPROVED FOR DETERMINATION OF TRACE
METALS. EMPHASIS IS ON LABORATORY OPERATIONS. THIS COURSE IS
INTENDED FOR CHEMISTS AND TECHNICIANS WITH LITTLE OR NO
EXPERIENCE IN ANALYTICAL METHODS FOR TRACE METALS. STUDENTS
SHOULD HAVE BASIC LABORATORY SKILLS INCLUDING USE OF
VOLUMETRIC GLASSWARE AND TITRATION ASSEMBLIES. TOPICS
INCLUDE SAMPLE HANDLING, ATOMIC ABSORPTION,
SPECTROPHOTOMETRY, FLAME PHOTOMETRY, AND TECHNIQUES FOR
DETERMINING VARIOUS TRACE METALS.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, 1200
CHAMBERS RD. - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007170

PUBLICATION DATE: JUN 80

TITLE: MICROSCOPIC ANALYSIS OF ACTIVATED SLUDGE - TRAINING
MANUAL.

DESCRIPTOR: BIOLOGICAL SCIENCES; DATA ANALYSIS; *LABORATORY
EQUIPMENT; *LABORATORY PROCEDURES; *MICROBIOLOGY;
*MICROSCOPES; *POST SECONDARY EDUCATION; WATER POLLUTION;
WATER RESOURCES; ACTIVATED SLUDGE; ANALYTICAL METHODS;
*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 445P. PRICE: \$1.00 PER DOCUMENT PLUS
\$.03 PER PAGE

ABSTRACT: THIS TRAINING MANUAL PRESENTS MATERIAL ON THE USE
OF A COMPOUND MICROSCOPE TO ANALYZE MICROSCOPE COMMUNITIES,
PRESENT IN WASTEWATER TREATMENT PROCESSES, FOR OPERATIONAL
CONTROL. COURSE TOPICS INCLUDE: SAMPLING TECHNIQUES, SAMPLE
HANDLING, LABORATORY ANALYSIS, IDENTIFICATION OF ORGANISM,
DATA INTERPRETATION, AND USE OF THE COMPOUND MICROSCOPE.
THIS MANUAL CONTAINS 26 CHAPTERS INCLUDING READING MATERIAL,
LABORATORY ACTIVITIES, AND SELECTED REFERENCES. PRIOR
EXPERIENCE IN MICROSCOPY IS NOT NECESSARY.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, 1200
CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007171

TITLE: INTRODUCTION TO ENVIRONMENTAL STATISTICS - SELF-
INSTRUCTIONAL COURSE.

DESCRIPTOR: AIR POLLUTION; *AUDIOVISUAL AIDS;
*ENVIRONMENTAL SCIENCE; *INSTRUCTIONAL MATERIALS;
*MATHEMATICS EDUCATION; POLLUTION CONTROL; *POST SECONDARY
EDUCATION; *STATISTICS; STUDY GUIDES; *TEACHING GUIDES

DESCRIPTIVE NOTE: SLIDES, TAPES, 9 BOOKLETS AND FINAL

EXAMINATION

ABSTRACT: THESE TRAINING MATERIALS PRESENT AN INTRODUCTION TO ENVIRONMENTAL STATISTICS. THE THREE MAJOR TOPICS ADDRESSED ARE MEASURES OF DISPERSION, DESCRIPTIVE STATISTICS, AND INTRODUCTION TO THE USE OF NORMAL PROBABILITY PAPER. THIS SET CONTAINS ONE INSTRUCTOR'S TEXTBOOK, SLIDES, CASSETTE TAPES, AND 9 WORKBOOKS AND FINAL EXAMINATIONS.

AVAILABILITY: NATIONAL AUDIOVISUAL CENTER, GENERAL SERVICES ADMINISTRATION, WASHINGTON, DC 20409

IRIS ACCESSION NUMBER: EW007172

PUBLICATION DATE: MAR 75

TITLE: NCASI - BACTERIOLOGICAL ANALYSIS OF WATER AND WASTEWATER.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *AUDIOVISUAL AIDS; *BACTERIOLOGY; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *POST SECONDARY EDUCATION; *SAMPLING; *TESTING; *WASTEWATER; *WATER QUALITY

DESCRIPTIVE NOTE: 150P.

ABSTRACT: THIS AUDIOVISUAL GUIDE PROVIDES A DETAILED PRESENTATION OF ANALYTICAL PROCEDURES FOR ENVIRONMENTAL TESTING. THIS SERIES WILL ASSIST THE ANALYST IN LEARNING THE PROPER TECHNIQUES FOR DETERMINING THE BACTERIOLOGICAL QUALITY OF WATER AND WASTEWATER. TOPICS COVERED INCLUDE: INTRODUCTION TO BACTERIOLOGICAL ANALYSIS; SAMPLE COLLECTION AND HANDLING; FUNDAMENTAL LABORATORY PROCEDURES; SERIAL DILUTION TECHNIQUES; THE MF TEST FOR TOTAL COLIFORM; THE MF TEST FOR FECAL COLIFORM; ASEPTIC INOCULATION TECHNIQUES; AND, DIFFERENTIATION OF THE COLIFORM GROUP.

AVAILABILITY: NORTHEAST REGIONAL CENTER, DEPARTMENT OF CIVIL ENGINEERING, TUFTS UNIVERSITY, MEDFORD, MA 02155

IRIS ACCESSION NUMBER: EW007173

PUBLICATION DATE: MAR 77

TITLE: SHORT COURSE PROCEEDINGS APPLICATIONS OF STORMWATER MANAGEMENT MODELS - 1976.

DESCRIPTOR: *CASE STUDIES; *COURSE CONTENT; DATA ANALYSIS; DATA COLLECTION; HYDROLOGY; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; *MODELS; PLANNING; *POST SECONDARY EDUCATION; *SURFACE RUNOFF; SAMPLING TECHNIQUES; *STORMWATER; URBAN AREAS

DESCRIPTIVE NOTE: 447P. EPA-600/2-77-063

ABSTRACT: THE PROCEEDINGS CONTAINED HEREIN REPRESENT AN ENTIRELY NEW SET OF CONTRIBUTIONS FROM PARTICIPATING SPEAKERS. THE OBJECTIVE OF THIS SHORT COURSE IS TO PROVIDE PRACTITIONERS WITH THE CAPABILITY TO APPLY SPECIFIC MODELS

DIRECTLY. TOWARD THIS GOAL, A DISCUSSION OF THE COMMON COMPONENTS OF STORMWATER MANAGEMENT MODELS FIRST GIVES AN OVERVIEW OF MODELING NEEDS. THE U.S. EPA STORMWATER MANAGEMENT MODEL (SWMM) IS THEN DESCRIBED IN DETAIL AND AN ILLUSTRATIVE CASE STUDY PRESENTED. THE TECHNIQUES FOR COLLECTING FIELD DATA FOR MODEL CALIBRATION ARE PRESENTED AND THE PERFORMANCE OF COMMERCIALY AVAILABLE SAMPLING EQUIPMENT ASSESSED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007174

PUBLICATION DATE: DEC 76

TITLE: DEMONSTRATION OF VOID SPACE STORAGE WITH TREATMENT AND FLOW REGULATION.

DESCRIPTOR: CONSTRUCTION; DESIGN; *EVALUATION; *FACILITIES; FLOW REGULATION; *PILOT PROJECTS; SURFACE RUNOFF; SEWERS; *STORMWATER; *TANKS; *UNDERGROUND STORAGE; *WATER STORAGE; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 115P. EPA-600/2-76-272

ABSTRACT: THE PURPOSE OF THIS PROJECT WAS TO DEMONSTRATE AND EVALUATE THE FEASIBILITY OF AN UNDERGROUND VOID SPACE STORAGE TANK, IN CONTAINING AND REGULATING STORM OVERFLOWS FROM A COMBINED SEWER, THUS REDUCING THE POLLUTION LOADS DISCHARGED TO THE RECEIVING WATER BODY. SYSTEM DESIGN, CONSTRUCTION, AND TWO YEARS OF OPERATION WERE CONDUCTED UNDER THE STUDY. THE PROTOTYPE FACILITY WAS CONSTRUCTED IN AKRON, OHIO WITH A COMBINED SEWER DRAINAGE AREA OF 76.3 HECTARE (188.5 ACRES). THE EXCESS COMBINED SEWER FLOWS WERE FED BY GRAVITY INTO THE $3.8 \times 10^{**6}$ LITER (1 MG) VOID SPACE RETENTION TANK. THE TANK IS OF AN EXCAVATED HOPPER SHAPE, LINED WITH AN IMPERMEABLE MEMBRANE AND FILLED WITH AN INERT MEDIA. STORAGE OF THE WASTEWATER IS IN THE VOID SPACE OF THE MEDIA. AFTER THE STORM EVENT, THE STORED STORMWATER WAS GRAVITY FED INTO THE INTERCEPTOR SEWER FOR SUBSEQUENT TREATMENT. THE UNDERGROUND FACILITY WAS A DUAL USAGE CONCEPT. IN ADDITION TO COLLECTING, CHLORINATING, AND DETAINING POTENTIAL COMBINED SEWER OVERFLOWS, THE FACILITY'S TOP SURFACE COULD BE MADE USABLE AS A PARK OR RECREATIONAL GROUNDS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007178

PUBLICATION DATE: SEP 81

TITLE: ELIMINATING CONTRACTOR INSPECTIONS OF FEDERAL WATER PROJECTS COULD SAVE MILLIONS.

DESCRIPTOR: *BUREAU OF RECLAMATION; CONTRACTORS; *CORPS OF ENGINEERS; *COST EFFECTIVENESS; DAMS; ECONOMIC FACTORS; *EVALUATION; *GOVERNMENT AGENCIES; *INSPECTION; *PROGRAM

REVIEWS; *QUALITY CONTROL; *WATER PROJECTS; WATER RESOURCES
DESCRIPTIVE NOTE: 30P.

ABSTRACT: THIS REPORT DISCUSSES THREE APPROACHES TO INSPECTING THE CONSTRUCTION OF DAMS AND OTHER FEDERAL WATER RESOURCES PROJECTS: (1) CONTRACTOR SELF-INSPECTION WITH AGENCY MONITORING, USED BY THE CORPS OF ENGINEERS; (2) AGENCY INSPECTION, USED BY THE BUREAU OF RECLAMATION; AND (3) THIRD-PARTY INSPECTION, OCCASIONALLY USED BY BOTH AGENCIES. CAO RECOMMENDS THAT THE SECRETARY OF DEFENSE EXEMPT CORPS WATER PROJECT CONSTRUCTION ACTIVITIES FROM THE REQUIREMENT FOR CONTRACTOR INSPECTIONS DUE TO DUPLICATION OF EFFORTS AND UNNECESSARY COSTS.

AVAILABILITY: U.S. GENERAL ACCOUNTING OFFICE, DOCUMENT HANDLING AND INFORMATION SERVICES FACILITY, P. O. BOX 6015, GAITHERSBURG, MD 20760

IRIS ACCESSION NUMBER: EW007179

PUBLICATION DATE: AUG 81

TITLE: PIPELINE CORROSION. 1977-JULY, 1981. (CITATIONS FROM THE ENGINEERING INDEX DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *CORROSION; CHEMICALS; CONSTRUCTION; MAINTENANCE; *PIPES; *RESEARCH; *WATER PIPES

DESCRIPTIVE NOTE: 233P. PB81-008545

ABSTRACT: WORLDWIDE RESEARCH IS CITED ON CORROSION AND CORROSION PREVENTION OF PIPELINES FOR NATURAL GAS, PETROLEUM, WATER, SLURRIES, AND OTHER GASES AND LIQUIDS. PIPES OF STEEL, STAINLESS STEEL, COPPER ALLOYS, GALVANIZED STEEL, CONCRETE, AND ZINC ALLOYS ARE THE MAJOR MATERIALS STUDIED. PREVENTION OF CORROSION BY CATHODIC PROTECTION, COATINGS, WRAPPINGS, AND LININGS ARE COVERED. THE USE OF PLASTICS FOR CORROSION RESISTANT PIPES IS INCLUDED. (THIS BIBLIOGRAPHY CONTAINS 243 CITATIONS, 9 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5205 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007180

PUBLICATION DATE: AUG 81

TITLE: PIPELINE CORROSION. 1964-JULY, 1981. (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *CORROSION; CHEMICALS; CONSTRUCTION; *PIPES; *RESEARCH; *WATER PIPES

DESCRIPTIVE NOTE: 299P. PB81-008537

ABSTRACT: FEDERALLY-SPONSORED RESEARCH ON PIPELINE

CORROSION IN SOILS, SEA WATER, AND FRESH WATER ARE COVERED. STUDIES INCLUDE PIPELINE SYSTEMS CONTAINING NATURAL GAS, PETROLEUM, SLURRIES, WATER, AND VOLATILE OR CORROSIVE LIQUIDS. MATERIALS FOR PIPELINES ARE DISCUSSED AS WELL AS INHIBITORS FOR PIPELINE SYSTEMS. COATINGS, LININGS, WELDING, AND TESTING ARE DESCRIBED AS THEY RELATE TO CORROSION. (THIS UPDATED BIBLIOGRAPHY CONTAINS 292 CITATIONS, 78 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5205 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007181

PUBLICATION DATE: NOV 81

TITLE: WHAT TO INCLUDE IN UTILITY RATE STRUCTURE DESIGN.

PERSONAL AUTHOR: CORSSMIT, C. (KEES) W.

DESCRIPTOR: *COSTS; *ECONOMIC FACTORS; *PRICING METHODS; *RATE STRUCTURES; *USER CHARGES; *UTILITIES; *WATER RATES; WATER USE

DESCRIPTIVE NOTE: 47-54P.

ABSTRACT: THIS ARTICLE STATES THAT THE INTEREST OF THE PUBLIC IS BEST SERVED BY SELF-SUSTAINED, UTILITY TYPE ENTERPRISES WHICH PROVIDE NEEDED SERVICES AT REASONABLE PRICES. A FAIR AND EQUITABLE RATE STRUCTURE IS A KEY INGREDIENT IN THE FINANCIAL MIX OF SUCH AN OPERATION AND THE AUTHORS EXPLAIN THE FOLLOWING RATE STRUCTURES: FLAT-RATE PRICING SYSTEM; VOLUME RATE STRUCTURES; STRAIGHT LINE RATES; STEP RATES; DECLINING BLOCK RATES; INVERTED RATES; LIFELINE RATES; COMBINATION RATE STRUCTURES; AND, TIME-OF-DAY PRICING.

AVAILABILITY: AMERICAN CITY 8 COUNTY, V96 N11

IRIS ACCESSION NUMBER: EW007182

PUBLICATION DATE: 80

TITLE: PRINCIPLES OF ICP EMISSION SPECTROSCOPY.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; ATOMIC SPECTRA; *AUDIOVISUAL AIDS; *EMISSION SPECTROSCOPY; ICP EMISSION SPECTROSCOPY; *INSTRUCTIONAL MATERIALS; *LABORATORY TECHNIQUES; MEASUREMENT; *POST SECONDARY EDUCATION; SLIDES; SPECTROGRAPHS

DESCRIPTIVE NOTE: CONTAINS 52 SLIDES, CASSETTES AND A 26 PAGE BOOKLET.

ABSTRACT: THE OBJECTIVES OF THIS SLIDE/TAPE PROGRAM ARE TO TEACH THE PRINCIPLES OF ANALYTICAL SPECTROSCOPY IN GENERAL AND ICP-EMISSION SPECTROSCOPY IN PARTICULAR. THE HISTORY AND ORIGIN OF ATOMIC SPECTRA ARE DISCUSSED FIRST, FOLLOWED BY A DESCRIPTION AND COMPARISON OF THE MAJOR CHARACTERISTICS OF EMISSION AND ADSORPTION SPECTRA. THE MEASUREMENT OF ATOMIC

EMISSION SPECTRA WITH SPECTROGRAPHS AND DIRECT READING POLYCHROMATORS IS TREATED NEXT, AND A DETAILED DISCUSSION OF THE MAJOR COMPONENTS OF MODERN INDUCTIVELY COUPLED PLASMA EMISSION SPECTROMETERS CONCLUDES THE PROGRAM.

AVAILABILITY: SAVANT, P. O. BOX 3670, FULLERTON, CA 92634

IRIS ACCESSION NUMBER: EW007183

PUBLICATION DATE: JUN 81

TITLE: SAFETY IN WASTEWATER TREATMENT SYSTEMS - INSTRUCTIONAL RESOURCES MONOGRAPH SERIES.

PERSONAL AUTHOR: COON, HERBERT L.

DESCRIPTOR: CHEMICALS; FIRE PREVENTION; CASES; *INSTRUCTIONAL MATERIALS; LABORATORY SAFETY; MANAGEMENT; MANHOLES; *OPERATIONS (WASTEWATER); *REFERENCE MATERIALS; *SAFETY; *SAFETY EDUCATION; *WASTEWATER TREATMENT; WORK ENVIRONMENT

DESCRIPTIVE NOTE: 197P. PRICE: \$5.50

ABSTRACT: THE INTENT OF THIS MONOGRAPH IS TO ASSEMBLE MATERIALS THAT MAY BE USEFUL TO MANAGERS, SUPERVISORS, FOREMEN, AND OTHERS WHO ARE INTERESTED IN THE SAFETY EDUCATION OF WORKERS IN WASTEWATER SYSTEMS. EIGHT SEPARATE ASPECTS OF SAFETY HAVE BEEN IDENTIFIED AND USED AS A FRAMEWORK TO IDENTIFY TYPICAL LEARNING RESOURCES AND PERTINENT REFERENCES. THESE EIGHT ASPECTS ARE: MANAGEMENT - SUPERVISOR - WORKER; INDIVIDUAL WORKER; PLANT DESIGN AND GENERAL OPERATION; CHEMICALS-CASES; ELECTRICITY; FIRE AND EXPLOSION; LABORATORY OPERATION; MANHOLES AND TRAFFIC.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007184

PUBLICATION DATE: AUG 81

TITLE: MERCURY POLLUTION. 1977-JULY, 1981. (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: AIR POLLUTION; *ANALYTICAL TECHNIQUES; *BIBLIOGRAPHIES; *METALS; *MERCURY; *POLLUTION CONTROL; *SAMPLING; *WATER QUALITY

DESCRIPTIVE NOTE: 156P. PB81-807786

ABSTRACT: THIS BIBLIOGRAPHY INCLUDES POLLUTION CONTROL, ENVIRONMENTAL SAMPLING AND ANALYSIS, AND AIR AND WATER QUALITY DATA RELATED TO MERCURY. THE TOXICITY AND POLLUTION EFFECTS ARE EXCLUDED. THIS UPDATED BIBLIOGRAPHY CONTAINS 148 CITATIONS, 49 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5205 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW007196

PUBLICATION DATE: JUL 77

TITLE: MICROORGANISMS IN URBAN STORMWATER.

DESCRIPTOR: BALTIMORE; *MICROBIOLOGY; *MICROORGANISMS; PATHOGENS; PUBLIC HEALTH; QUANTITATIVE ASSAYS; *RESEARCH REPORTS; *SURFACE RUNOFF; SEWERS; *STORMWATER; *URBAN AREAS; *WASTEWATER COLLECTION;

DESCRIPTIVE NOTE: 102P.

ABSTRACT: THIS REPORT DOCUMENTS MICROBIOLOGICAL QUANTITATIVE ASSAYS OF BALTIMORE CITY URBAN RUNOFF TO SHOW THE RELATIONSHIPS TO SEVERAL FACTORS SUCH AS SEPARATE OR COMBINED SEWER FLOW, URBAN CHARACTERISTICS OF DRAINAGE AREA, RAINFALL, AND QUANTITY OF FLOW DURING AND BETWEEN RAIN STORMS. IN GENERAL, THERE WAS A CONSISTENTLY HIGH RECOVERY OF BOTH PATHOGENIC AND INDICATOR MICROORGANISMS THROUGHOUT THE STUDY.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON, DC 20402

IRIS ACCESSION NUMBER: EW007197

PUBLICATION DATE: AUG 72

TITLE: GUIDELINES FOR EROSION AND SEDIMENT CONTROL PLANNING AND IMPLEMENTATION

DESCRIPTOR: *CONSTRUCTION; *DESIGN; *EROSION CONTROL; *GUIDELINES; *IMPLEMENTATION; *PLANNING; *SEDIMENTATION; SITE EVALUATION; *TECHNICAL REPORTS; URBAN AREAS

DESCRIPTIVE NOTE: 228P.

ABSTRACT: THE PURPOSE OF THIS PUBLICATION IS TO HELP THOSE RESPONSIBLE FOR, OR ENGAGED IN, URBAN CONSTRUCTION TO PREVENT THE UNCONTROLLED MOVEMENT OF SOIL AND SUBSEQUENT DAMAGE IT CAUSES. THESE GUIDELINES PRESENT A COMPREHENSIVE APPROACH TO THE PROBLEM OF EROSION AND SEDIMENT CONTROL FROM BEGINNING OF PROJECT PLANNING TO COMPLETION OF CONSTRUCTION. TECHNICAL INFORMATION ON 42 SEDIMENT AND EROSION CONTROL PRODUCTS, PRACTICES, AND TECHNIQUES IS CONTAINED IN FOUR APPENDICES.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON, DC 20402

IRIS ACCESSION NUMBER: EW007201

PUBLICATION DATE: SEP 81

TITLE: PCB'S REGULATORY HISTORY AND ANALYTICAL PROBLEMS.

PERSONAL AUTHOR: CAIRNS, THOMAS; SIEGMUND, EMIL C.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICAL ANALYSIS;

CHEMISTRY; *CONTAMINANTS; FOOD; INDUSTRIAL WASTES;
PESTICIDES; *POLYCHLORINATED BIPHENYLS; PUBLIC HEALTH;
*REGULATIONS; *TOXICITY

DESCRIPTIVE NOTE: 1183A-93AP.

ABSTRACT: EXAMINES VARIOUS ASPECTS OF POLYCHLORINATED BIPHENYLS (PCB) INCLUDING THEIR SYNTHESES, REGULATORY HISTORY, TOXICITY, AND PROBLEMS ASSOCIATED WITH PCB ANALYSIS. A DETAILED CHEMICAL DISCUSSION IS PROVIDED ALONG WITH A TABLE ILLUSTRATING FDA TOLERANCES FOR PCB'S IN SEVERAL CLASSES OF FOOD.

AVAILABILITY: ANALYTICAL CHEMISTRY, V53 N11

IRIS ACCESSION NUMBER: EW007202

PUBLICATION DATE: SEP 81

TITLE: MICROPROCESSOR-BASED LABORATORY DATA ACQUISITION SYSTEMS.

PERSONAL AUTHOR: WOODARD, F. E.; AND OTHERS

DESCRIPTOR: COMPUTER ORIENTED PROGRAMS; COMPUTERS; *DATA COLLECTION; *EQUIPMENT EVALUATION; HIGHER EDUCATION; INFORMATION PROCESSING; *INSTRUMENTATION; LABORATORY EQUIPMENT; *LABORATORY TECHNOLOGY; *MICROCOMPUTERS; SCIENCE EDUCATION; TECHNOLOGICAL ADVANCEMENT; *MICROPROCESSORS

DESCRIPTIVE NOTE: 1251A-66AP.

ABSTRACT: FOCUSES ON ATTRIBUTES OF MICROCOMPUTER SYSTEMS WHICH AFFECT THEIR USEFULNESS IN A LABORATORY ENVIRONMENT. IN ADDITION TO PRESENTING GENERAL CONCEPTS, COMMENTS ARE MADE REGARDING THE IMPLEMENTATION OF THESE CONCEPTS USING A MICROPROCESSOR-BASED DATA ACQUISITION SYSTEM DEVELOPED AT THE UNIVERSITY OF NORTH CAROLINA.

AVAILABILITY: ANALYTICAL CHEMISTRY, V53 N11

IRIS ACCESSION NUMBER: EW007203

PUBLICATION DATE: SEP 81

TITLE: PRECONCENTRATION OF CADMIUM, COPPER, LEAD, AND ZINC IN WATER AT THE 10**-12 G/G LEVEL BY ADSORPTION ONTO TUNGSTERN WIRE FOLLOWED BY FLAMELESS ATOMIC ABSORPTION SPECTROMETRY.

PERSONAL AUTHOR: WOLFF, ERIC W.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICAL ANALYSIS; CHEMISTRY; EQUIPMENT; *HEAVY METALS; LABORATORY TECHNIQUES; POLAR STUDIES; RESEARCH REPORTS; SNOW; *SPECTROMETRY; *WATER ANALYSIS

DESCRIPTIVE NOTE: 1566-1370P.

ABSTRACT: EVALUATED WAS A FLAMELESS ATOMIC ABSORPTION

SPECTROMETRY TECHNIQUE FOR DETECTING PRECONCENTRATIONS OF HEAVY METALS IN POLAR SNOW SAMPLES TO DETERMINE WHETHER IT WAS SUITABLE FOR USE IN A FIELD SITUATION. DATA FOR AN ANTARCTIC SNOW SAMPLE ARE PRESENTED IN COMPARISON WITH THOSE OBTAINED BY DIRECT ANALYSIS OF DUPLICATE SAMPLES USING DIFFERENTIAL PULSE ANODIC STRIPPING VOLTAMMETRY AT A ROTATING GLASSY CARBON ELECTRODE.

AVAILABILITY: ANALYTICAL CHEMISTRY, V53 N11

IRIS ACCESSION NUMBER: EW007204

PUBLICATION DATE: SEP 81

TITLE: SAMPLE ENRICHMENT FOR DETERMINATION OF CHLORINATED PESTICIDES IN WATER AND SOIL BY CHROMATOGRAPHIC EXTRACTION.

PERSONAL AUTHOR: MANGANI, FILIPPO; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; CHEMICAL ANALYSIS; CHLOROPESTICIDES; *CHROMATOGRAPHY; LABORATORY PROCEDURES; *LABORATORY TECHNIQUES; *PESTICIDES; RESEARCH REPORTS; *SOIL STUDIES; *WATER ANALYSIS

DESCRIPTIVE NOTE: 1627-1632P.

ABSTRACT: THE USE OF CARBOPACK B COLUMNS TO RECOVER CHLORINATED PESTICIDES FROM WATER IS DISCUSSED IN TERMS OF RECOVERY AND ELUTION CURVES. THE SAME PRINCIPLES APPLY FOR THE EXTRACTION OF CHLORINATED PESTICIDES FROM SOIL. THE METHOD PRESENTED USES SMALL SOLVENT VOLUMES AND SAVES TIME.

AVAILABILITY: ANALYTICAL CHEMISTRY, V53 N11

IRIS ACCESSION NUMBER: EW007205

PUBLICATION DATE: OCT 81

TITLE: TAILORING DESIGN OF TREATMENT PLANTS TO LOCAL CONDITIONS.

PERSONAL AUTHOR: PRENDIVILLE, PAUL W.

DESCRIPTOR: *CASE STUDIES; *DESIGN; *FACILITIES; MANAGEMENT; *OPERATIONS (WATER); WATER QUALITY; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 507-513P.

ABSTRACT: THIS ARTICLE DESCRIBES THE INFLUENCE LOCAL CONDITIONS HAD ON THE DESIGN CRITERIA FOR WATER TREATMENT SYSTEMS IN SYDNEY, AUSTRALIA; MANILA, PHILIPPINES; SPRINGFIELD, MASS.; ROCHESTER, NY; AND THE BROOKHAVEN NATIONAL LABORATORY LOCATED ON LONG ISLAND, NY. PRETREATMENT PROCESSES WERE QUITE DIFFERENT, BUT COMMON DESIGNS WERE SUITABLE FOR FILTER MEDIA, FILTER LOADING RATES, AND GRADUATION OF MEDIA. DIFFERENCES WERE CREATED BY RAW WATER QUALITY, REGULATIONS, CLIMATIC CONDITIONS, AND THE SUBTLE NEED TO USE LABOR-INTENSIVE PROCESSES RATHER THAN AUTOMATED SYSTEMS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73
N10

IRIS ACCESSION NUMBER: EW007206

PUBLICATION DATE: OCT 81

TITLE: INFORMATION MANAGEMENT: A ROLE FOR PRIMACY AGENCIES
IN THE 80S.

PERSONAL AUTHOR: BOUSFIELD, KENNETH H.

DESCRIPTOR: *CASE STUDIES; *DATA ANALYSIS; *DATA
PROCESSING; DRINKING WATER; *INFORMATION SYSTEMS;
*MANAGEMENT; OPERATIONS (WATER); *STANDARDS; *STATE
AGENCIES; *UTAH; *WATER TREATMENT; *WATER QUALITY; *WATER
RESOURCES

DESCRIPTIVE NOTE: 519-523P.

ABSTRACT: STATE AGENCIES, FACED WITH ENFORCING THE
REQUIREMENTS OF THE SAFE DRINKING WATER ACT, NEED TIMELY
ACCESS TO COMPLETE INFORMATION ON EACH PUBLIC WATER SYSTEM
WITHIN THEIR JURISDICTIONS. THE UTAH BUREAU OF PUBLIC WATER
SUPPLIES ACQUIRED AN ELECTRONIC DATA PROCESSING SYSTEM THAT
HELPS UTAH'S 1315 SYSTEMS COLLECT SAMPLES ON SCHEDULE,
MONITORS COMPLIANCE WITH MANDATED MAXIMUM CONTAMINANT LEVELS
(MCLS), AND, IF MCLS ARE EXCEEDED BY ANY UTILITY, ALERTS THE
AGENCY SO IT CAN ASSIST. THE DATA PROCESSING SYSTEM IS
EXPECTED TO ACCOMMODATE FUTURE US ENVIRONMENTAL PROTECTION
AGENCY MONITORING REQUIREMENTS AS WELL.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION, JOURNAL,
V73 N10

IRIS ACCESSION NUMBER: EW0, 207

PUBLICATION DATE: OCT 81

TITLE: GROUND-LEVEL VERSUS ELEVATED STORAGE.

PERSONAL AUTHOR: FOLAND, DONALD L.

DESCRIPTOR: *CASE STUDIES; *DESIGN; *FACILITIES; *INDIANA;
MUNICIPALITIES; *STORAGE; *TANKS; *WATER DISTRIBUTION;
*WATER SUPPLY

DESCRIPTIVE NOTE: 525-527P.

ABSTRACT: THE CAPACITY OF WATER TREATMENT FACILITIES IN
FORT WAYNE, IND., WILL SOON OUTGROW THE CAPACITY OF ITS
DISTRIBUTION SYSTEM. LARGE, NEW TRUNK MAINS EXTENDING
THROUGH DEVELOPED AREAS IN ALL DIRECTIONS FROM THE UPGRADED
TREATMENT PLANT WOULD BE PROHIBITIVELY EXPENSIVE, SO TO
MAINTAIN ADEQUATE WATER PRESSURE AROUND THE PERIMETER OF THE
SYSTEM DURING PEAK-LOAD DEMANDS, GROUND-LEVEL STORAGE
FACILITIES WITH REPUMPING STATIONS ARE PLANNED. NEW MAINS OF
MODERATE SIZE AND LENGTH CAN BE USED. WATER CAN BE STORED
DURING OFF-PEAK HOURS AND PUMPED BACK INTO THE SYSTEM.
FUTURE PLANS CALL FOR PRESSURE AND FLOW SENSORS TO TRANSMIT

DATA TO A COMPUTER SO THAT THE MAIN PUMPING STATION AND THE
REPUMPING STATIONS CAN BE CONTROLLED AUTOMATICALLY.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73
N10

IRIS ACCESSION NUMBER: EW007208

PUBLICATION DATE: OCT 81

TITLE: LIMITATIONS OF STANDARD COLIFORM ENUMERATION
TECHNIQUES.

PERSONAL AUTHOR: SEIDLER, RAMON J.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *BACTERIOLOGY;
*COLIFORMS; DRINKING WATER; *LABORATORY TECHNIQUES;
MONITORING; *OPERATIONS (WATER); POTABLE WATER; *SAMPLING;
*TESTING; *WATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 538-542P.

ABSTRACT: CONVENTIONAL FERMENTATION TUBE PROCEDURES TO
OBTAIN COUNTS OF THE MOST PROBABLE NUMBER (MPN) OF COLIFORMS
PRESENT IN WATER OFTEN MASK GENERA SUCH AS CITROBACTER AND
ENTEROBACTER. A MODIFIED METHOD, USING VARIATIONS OF A
FAMILIAR LABORATORY TECHNIQUE, CAN DETECT THESE WEAK GAS-
PRODUCERS. ALTHOUGH BETTER METHODS OF DETECTION COULD LEAD
TO PERCEIVED NONCOMPLIANCE WITH THE SAFE DRINKING WATER ACT,
THE AUTHORS FEEL THAT ALL POTABLE WATER SHOULD BE FREE OF
COLIFORM CONTAMINATION, AND IF DISTRIBUTION SYSTEMS ARE
PROPERLY MAINTAINED AND RAW WATER TREATMENT IS EFFECTIVE,
COLIFORMS WILL NOT BE DETECTED BY ANY TECHNIQUE.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73
N10

IRIS ACCESSION NUMBER: EW007209

PUBLICATION DATE: OCT 81

TITLE: GAS CHROMATOGRAPHIC TECHNIQUES FOR CONTROLLING
ORGANICS REMOVAL PROCESSES.

PERSONAL AUTHOR: STEVENS, ALAN A.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHROMATOGRAPHY;
*DRINKING WATER; *GAS CHROMATOGRAPHY; *LABORATORY
TECHNIQUES; *MONITORING; *ORGANIC COMPOUNDS; *SAMPLING;
*WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 548-554P.

ABSTRACT: GAS CHROMATOGRAPHY (GC) PROCEDURES ARE NOT
APPROPRIATE FOR MEASURING ALL ORGANIC COMPOUNDS BUT ARE WELL
SUITED FOR THE LOWER-MOLECULAR-WEIGHT SYNTHETIC ORGANICS
(SOCs). SELECTIVE GC PROCEDURES CAN ANALYZE COMPOUNDS SUCH
AS HERBICIDES, PESTICIDES, AND OTHER MOST NONREGULATED SOCS
THAT CAUSE CONCERN IN DRINKING WATER LIE IN THE
CHROMATOGRAPHABLE TOC SPECTRUM, THEREBY PROVIDING A USEFUL

TOOL TO IDENTIFY AND QUANTIFY GC PEAKS OR TO EVALUATE WATER QUALITY CHANGES THROUGHOUT THE ELAPSED TIME OF THE TREATMENT SEQUENCE.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N19

IRIS ACCESSION NUMBER: EW007210

PUBLICATION DATE: OCT 81

TITLE: CONTINUOUS, AUTOMATED, AND LOW-COST MONITORING OF THE ORGANIC CONTENT IN WATER.

PERSONAL AUTHOR: DAVENPORT, R. J.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *COST EFFECTIVENESS; *DRINKING WATER; *ELECTROCHEMICAL ANALYZERS; *LABORATORY TECHNIQUES; *MONITORING; *ORGANIC COMPOUNDS; WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 535-558P.

ABSTRACT: THIS ARTICLE REPORTS ON THE RESULTS OF A FEASIBILITY DEMONSTRATION OF A SENSITIVE, EXPERIMENTAL ELECTROCHEMICAL ORGANIC CONTENT (EOC) ANALYZER. THE EOC ANALYZER SHOWED POTENTIAL AT LEAST EQUAL TO THAT OF CONVENTIONAL METHODS OF MEASURING TOTAL ORGANIC CONTENT AND TOTAL OXYGEN DEMAND. IN ACTUAL USE, THE EOC WOULD BE CONSIDERABLY LESS COSTLY IN TERMS OF EQUIPMENT AND COULD ALSO SAVE LABOR COSTS IF IT CAN BE INTEGRATED WITH ON-SITE MICROCOMPUTERS TO CONTROL TREATMENT PLANT RESPONSES TO ORGANICS AUTOMATICALLY.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N19

IRIS ACCESSION NUMBER: EW007211

PUBLICATION DATE: OCT 81

TITLE: NEWS OF THE FIELD.

DESCRIPTOR: *AGRICULTURE; *ALTERNATE TECHNOLOGIES; BUSINESS; FLOOD CONTROL; IRRIGATION; *INDUSTRIES; *MANAGEMENT; MAPPING; *OPERATIONS (WATER); *TECHNOLOGICAL ADVANCEMENTS; *WATER RESOURCES; *WATER TREATMENT

DESCRIPTIVE NOTE: 62,63,67-NEWSP.

ABSTRACT: THIS SECTION REVIEWS THE CURRENT NEWS IN THE FIELD OF WATER MANAGEMENT. INCLUDED ARE DISCUSSIONS OF ALTERNATIVE TECHNOLOGIES FOR SMALL WATER SYSTEM MANAGEMENT, IRRIGATED CROPLAND MAPS OF THE HIGH PLAINS, BENEFITS OF BUREAU OF RECLAMATION FLOOD CONTROL PROJECTS, AND INDUSTRIAL NEWS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N19

IRIS ACCESSION NUMBER: EW007214

PUBLICATION DATE: 73

TITLE: PROGRAM IMPLEMENTATION PROCEDURES - IMPLEMENTATION OF TWO YEAR HIGH SCHOOL WASTEWATER TECHNOLOGY INSTRUCTIONAL PROGRAMS.

DESCRIPTOR: *CURRICULUM; EVALUATION; GUIDELINES; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WASTEWATER); *PROGRAM IMPLEMENTATION; *PROGRAM DESCRIPTIONS; *SECONDARY EDUCATION; TECHNICAL EDUCATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 43P. PRICE: \$1.00 PER DOCUMENT PLUS \$.03 PER PAGE.

ABSTRACT: THE GOAL OF THIS DOCUMENT IS TO ASSIST OTHER EDUCATIONAL INSTITUTIONS IN EVALUATING THEIR OWN READINESS AND ABILITY TO CONDUCT AN INSTRUCTIONAL PROGRAM FOR WASTEWATER TREATMENT PLANT TECHNICIANS, AND TO SUGGEST A SYSTEM THAT THEY MIGHT FOLLOW IN ACCOMPLISHING THIS OBJECTIVE. IN ADDITION, A SUGGESTED TWO YEAR CURRICULUM IS OFFERED WITH COURSE DESCRIPTIONS PREPARED IN PERFORMANCE TERMS.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212-1792

IRIS ACCESSION NUMBER: EW007217

TITLE: LABORATORY ANALYSIS.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; COURSE DESCRIPTIONS; *INSTRUCTIONAL MATERIALS; LABORATORY EQUIPMENT; *LABORATORY PROCEDURES; LABORATORY TECHNIQUES; MONITORING; *POST SECONDARY EDUCATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 90P.

ABSTRACT: THIS MANUAL DESCRIBES A COURSE ON BASIC LABORATORY ANALYSES. SECTIONS INCLUDE: REASONS FOR LABORATORY TESTING; REFERENCES AND PARAMETERS; TERMINOLOGY AND EQUIPMENT; SAFETY AND HYGIENE; SAMPLING; LABORATORY TESTS (PH, CHLORINE RESIDUAL, SUSPENDED SOLIDS, SETTLEABLE SOLIDS, FECAL COLIFORM, DISSOLVED OXYGEN, BIOCHEMICAL OXYGEN DEMAND); AND STATE REQUIREMENTS AND REPORTING.

AVAILABILITY: VIRGINIA STATE WATER CONTROL BOARD, BUREAU OF APPLIED TECHNOLOGY, TRAINING DIVISION, RICHMOND, VA 23219

IRIS ACCESSION NUMBER: EW007218

TITLE: PRIMARY SEDIMENTATION AND TRICKLING FILTERS.

DESCRIPTOR: CLARIFIERS; DESIGN; EQUIPMENT; *INSTRUCTIONAL MATERIALS; *MANUALS; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *PRIMARY SEDIMENTATION; *SEDIMENTATION; *TRICKLING FILTERS; TROUBLESHOOTING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 31P.

ABSTRACT: THIS MANUAL OUTLINES THE DESIGN AND OPERATION OF PRIMARY SEDIMENTATION AND TRICKLING FILTERS. SECTIONS UNDER PRIMARY SEDIMENTATION INCLUDE FUNCTIONS, FLOW CONTROL, DETAIL OF TANKS, SLUDGE COLLECTION, EFFICIENCY, AND OPERATING HINTS. SECTIONS UNDER TRICKLING FILTERS INCLUDE FUNCTIONS, POSITION AND TYPE OF TRICKLING FILTERS, CONSTRUCTION, LOADING RANGE, DOSING, NORMAL OPERATIONAL CONSIDERATIONS, AND OPERATIONAL TROUBLES.

AVAILABILITY: VIRGINIA STATE WATER CONTROL BOARD, BUREAU OF APPLIED TECHNOLOGY, TRAINING DIVISION, RICHMOND, VA 23219

IRIS ACCESSION NUMBER: EW007219

PUBLICATION DATE: 73

TITLE: CONCEPTS OF ACTIVATED SLUDGE.

DESCRIPTOR: *ACTIVATED SLUDGE; DESIGN; EQUIPMENT; FACILITIES; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *SLUDGE; TESTING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 25P.

ABSTRACT: THIS MANUAL OUTLINES THE BASIC CONCEPTS OF ACTIVATED SLUDGE. SECTIONS INCLUDE: DEFINITIONS; PROCESS MECHANICS; FORMATION OF ACTIVATED SLUDGE; TYPES OF SLUDGE; UNIT DESCRIPTION; FACTORS AFFECTING OPERATIONS; PROCESS MODIFICATIONS; TYPICAL ACTIVATED SLUDGE DESIGN PARAMETERS; BASIC CONTROL TEST; AND, OPERATIONAL OBSERVATIONS.

AVAILABILITY: VIRGINIA STATE WATER CONTROL BOARD, BUREAU OF APPLIED TECHNOLOGY, TRAINING DIVISION, RICHMOND, VA 23219

IRIS ACCESSION NUMBER: EW007220

PUBLICATION DATE: 76

TITLE: STABILIZATION PONDS & LAGOONS.

DESCRIPTOR: ALGAE; DESIGN; *INSTRUCTIONAL MATERIALS; *LAGOONS; MAINTENANCE; MANUALS; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; SAFETY; SAMPLING; *STABILIZATION PONDS; START-UP; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 72P.

ABSTRACT: THIS MANUAL OUTLINES THE BASIC CONCEPTS OF STABILIZATION PONDS AND LAGOONS. SECTIONS INCLUDE: HISTORY OF WASTEWATER TREATMENT PONDS; WASTEWATER TERMINOLOGY; STABILIZATION PONDS; SAMPLING; DESIGN CRITERIA; START-UP; OPERATION AND MAINTENANCE; ALGAE; AERATED LAGOONS; SAFETY; AND, CALCULATIONS.

AVAILABILITY: VIRGINIA STATE WATER CONTROL BOARD, BUREAU OF APPLIED TECHNOLOGY, TRAINING DIVISION, RICHMOND, VA

IRIS ACCESSION NUMBER: EW007221

PUBLICATION DATE: FEB 77

TITLE: METRICATION GUIDELINES FOR CONSULTING ENGINEERS.

DESCRIPTOR: CONSTRUCTION; DESIGN; EQUIPMENT; *GUIDELINES; *INSTRUCTIONAL MATERIALS; *MEASUREMENT; *METRIC SYSTEM; *POST SECONDARY EDUCATION; *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 52P.

ABSTRACT: THIS MANUAL PRESENTS GUIDELINES ON THE APPLICATION OF THE METRIC SYSTEM TO THE DESIGN AND CONSTRUCTION OF WATER, WASTEWATER AND RESOURCE RECOVERY WORKS. SECTIONS INCLUDE: MAP AND PLAN SCALES, RATIOS AND PAPER SIZES; DESIGN, SPECIFICATION AND UNITS OF EXPRESSION; FACTORS AFFECTING CONVERSION; AND, EQUIPMENT.

AVAILABILITY: MINISTRY OF THE ENVIRONMENT, TRAINING AND CERTIFICATION SECTION, POLLUTION CONTROL BRANCH, 135 ST. CLAIR AVENUE WEST, TORONTO, ONTARIO M4V 1P5, CANADA

IRIS ACCESSION NUMBER: EW007222

PUBLICATION DATE: 75

TITLE: VISIBLE EMISSIONS IDENTIFICATION - 1975.

DESCRIPTOR: *AIR POLLUTION; COMBUSTION; *DETECTION; *EMISSIONS; *INSTRUCTIONAL MATERIALS; *MONITORING; POLLUTION CONTROL; *POST SECONDARY EDUCATION; REGULATIONS; SMOKE; *VISIBLE EMISSIONS

DESCRIPTIVE NOTE: 150P.

ABSTRACT: THIS MANUAL PRESENTS MATERIAL FOR INSTRUCTORS AND STUDENTS. THE COURSE IS DESIGNED TO CERTIFY PERSONNEL IN THE IDENTIFICATION OF THE OPACITIES OF VISIBLE EMISSIONS. TOPICS INCLUDE: VISIBLE EMISSIONS - THEIR CAUSE AND REGULATION; CLASSIFICATION AND IDENTIFICATION OF SOURCES; LEGAL ASPECTS; PROVIDING YOUR CASE; WITNESSMANSHIP; METEOROLOGICAL FACTORS IN READING OF VISIBLE EMISSIONS; EMISSION GENERATOR; CERTIFICATION; PRINCIPLES OF COMBUSTION; COMBUSTION OF FUEL OIL - CORRECT PRACTICES; COMBUSTION OF COAL AND ITS CONTROL; AND, OTHER COMBUSTION EMISSIONS - INCINERATORS, AGRICULTURAL BURNING, NATURAL GAS, AND MOBILE SOURCES.

AVAILABILITY: MINISTRY OF GOVERNMENT SERVICES, PUBLICATIONS CENTRE, 3RD BASEMENT LEVEL, MACDONALD BLOCK, QUEEN'S PARK, TORONTO, ONTARIO, M7A 1N6 CANADA

IRIS ACCESSION NUMBER: EW007223

PUBLICATION DATE: 75

TITLE: WASTE DISPOSAL BY LANDFILLING - 1975.

DESCRIPTOR: *CANADA; ECONOMIC FACTORS; *INSTRUCTIONAL

MATERIALS; LAND USE; *LANDFILLS; MANUALS; *OPERATOR TRAINING; *POST SECONDARY EDUCATION; PUBLIC RELATIONS; STANDARDS; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 175P.

ABSTRACT: THIS MANUAL IS DESIGNED TO PROVIDE INFORMATION TO MUNICIPAL AND PRIVATE WASTE DISPOSAL LANDFILL SITE OPERATORS AND MINISTRY OF THE ENVIRONMENT ENVIRONMENTAL OFFICERS. IT DISCUSSES LEGISLATION, WASTE DISPOSAL PRACTICES AND STANDARDS FOR LANDFILL SITES, OPERATING PROCEDURES, AND EMPHASIZES ECONOMICAL OPERATION, ENVIRONMENTAL PROTECTION AND PUBLIC RELATIONS. THE ROLE AND FUNCTIONS OF MINISTRY PERSONNEL ARE PRESENTED.

AVAILABILITY: TRAINING AND CERTIFICATION SECTION, TECHNICAL SERVICES BRANCH, MINISTRY OF THE ENVIRONMENT, 40 ST. CLAIR AVENUE WEST, TORONTO, ONTARIO M4V 1P3, CANADA

IRIS ACCESSION NUMBER: EW007225

PUBLICATION DATE: JUL 78

TITLE: MATHEMATICS FOR WATER AND WASTEWATER OPERATIONS.

DESCRIPTOR: *ARITHMETIC; *CANADA; *INSTRUCTIONAL MATERIALS; *MATHEMATICAL CONCEPTS; *MATHEMATICS; *OPERATOR TRAINING; *POST SECONDARY EDUCATION; *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 67P.

ABSTRACT: THE OBJECTIVE OF THIS STUDENT MANUAL IS TO HELP WATER OR WASTEWATER TREATMENT PLANT OPERATORS TO DETERMINE PROCESS EFFICIENCY THROUGH THE USE OF MATHEMATICAL CALCULATIONS RATHER THAN TRIAL AND ERROR METHODS. THE MANUAL IS DESIGNED AS A GUIDE TO THE OPERATOR IN THE SENSE OF PROVIDING EXAMPLES OF TYPICAL IN-PLANT CALCULATIONS.

AVAILABILITY: ONTARIO GOVERNMENT BOOK STORE, 880 BAY STREET, TORONTO, ONTARIO, M7A 1N8, CANADA

IRIS ACCESSION NUMBER: EW007227

PUBLICATION DATE: 76

TITLE: FLUID POWER FUNDAMENTALS - INSTRUCTOR'S GUIDE.

DESCRIPTOR: *AUDIOVISUAL AIDS; *EQUIPMENT; *FLUID MECHANICS; *FLUID POWER; *HYDRAULICS; HYDROSTATICS; *INSTRUCTIONAL MATERIALS; *POST SECONDARY EDUCATION; *TEACHING GUIDES

DESCRIPTIVE NOTE: 8P.

ABSTRACT: THIS INSTRUCTOR'S GUIDE PRESENTS INTRODUCTORY INFORMATION, COURSE CONTENT OUTLINES, AND TESTS FOR A COURSE ON FLUID POWER FUNDAMENTALS. THE FOUR INSTRUCTIONAL UNITS IN THIS COURSE ARE: THE THEORY OF HYDRAULICS; THE HOW AND WHY OF HYDRAULIC COMPONENTS; TROUBLESHOOTING HYDRAULIC SYSTEMS;

AND, THE LANGUAGE OF FLUID POWER SYMBOLS. THE MATERIAL IS PRESENTED IN SLIDE AND TAPE FORMAT.

AVAILABILITY: INDUSTRIAL MEDIA INC., 7152 E. FULTON, ADA, MI 49301

IRIS ACCESSION NUMBER: EW007228

PUBLICATION DATE: 76

TITLE: FLUID POWER FUNDAMENTALS - THE THEORY OF HYDRAULICS.

DESCRIPTOR: EQUIPMENT; *FLUID MECHANICS; *FLUID POWER; *HYDRAULICS; *HYDROSTATICS; *INSTRUCTIONAL MATERIALS; *PNEUMATICS; *POST SECONDARY EDUCATION

DESCRIPTIVE NOTE: 15P.

ABSTRACT: THIS BOOKLET PRESENTS AN INSTRUCTIONAL UNIT ON THE BASIC PRINCIPLES OF HYDROSTATICS. THE FOLLOWING TOPICS ARE COVERED: THE USE OF HYDRAULICS; HYDROSTATICS; HYDRODYNAMICS; FLOW; PRESSURE; PNEUMATICS; OBTAINING A MECHANICAL ADVANTAGE; AND, THE BASIC JACK.

AVAILABILITY: INDUSTRIAL MEDIA INC., 7152 E. FULTON, ADA, MI 49301

IRIS ACCESSION NUMBER: EW007229

TITLE: FLUID POWER FUNDAMENTALS - THE HOW AND WHY OF HYDRAULIC COMPONENTS.

DESCRIPTOR: ACCUMULATORS; CYLINDERS; *EQUIPMENT; FILTERS; *FLUID MECHANICS; *FLUID POWER; *HYDRAULICS; *INSTRUCTIONAL MATERIALS; MOTORS; *POST SECONDARY EDUCATION; TANKS; VALVES

ABSTRACT: THIS BOOKLET PRESENTS AN INSTRUCTIONAL UNIT ON THE BASIC PRINCIPLES OF HYDRAULIC COMPONENT OPERATION. THE FOLLOWING TOPICS ARE COVERED: TANKS; FILTERS; PUMPS; ACCUMULATORS; VALVES; CYLINDERS; AND, MOTORS.

AVAILABILITY: INDUSTRIAL MEDIA, INC., 6303 28TH STREET, S.E., GRAND RAPIDS, MI 49506

IRIS ACCESSION NUMBER: EW007230

PUBLICATION DATE: 76

TITLE: FLUID POWER FUNDAMENTALS - TROUBLESHOOTING HYDRAULIC SYSTEMS.

DESCRIPTOR: *EQUIPMENT; *FLUID MECHANICS; *FLUID POWER; *HYDRAULICS; *HYDRAULIC SYSTEMS; *INSTRUCTIONAL MATERIALS; *POST SECONDARY EDUCATION; *TROUBLESHOOTING

DESCRIPTIVE NOTE: 20P.

ABSTRACT: THIS BOOKLET PRESENTS AN INSTRUCTIONAL UNIT ON

THE NECESSARY SKILLS FOR TROUBLESHOOTING ANY HYDRAULIC SYSTEM. THE FOLLOWING TOPICS ARE COVERED: DEFINING COMPONENT RELATIONSHIPS; ANALYZING PRESSURE AND FLOW; ESTABLISHING A LOGICAL TROUBLESHOOTING SEQUENCE; AND, THE RULES OF TROUBLESHOOTING.

AVAILABILITY: INDUSTRIAL MEDIA INC., 7152 E. FULTON, ADA, MI 49301

IRIS ACCESSION NUMBER: EW007231

PUBLICATION DATE: 76

TITLE: FLUID POWER FUNDAMENTALS - THE LANGUAGE OF FLUID POWER SYMBOLS.

DESCRIPTOR: EQUIPMENT; FILTERS; *FLUID MECHANICS; *FLUID POWER; *HYDRAULICS; *INSTRUCTIONAL MATERIALS; *POST SECONDARY EDUCATION; PUMPS; *SYMBOLS; TANKS; VALVES

DESCRIPTIVE NOTE: 11P.

ABSTRACT: THIS BOOKLET PRESENTS AN INSTRUCTIONAL UNIT ON THE USE OF BASIC GRAPHIC SYMBOLS WHICH ARE USED IN THE FLUID POWER INDUSTRY. THE FOLLOWING TOPICS ARE COVERED: TANKS; FILTERS; PUMPS; DIRECTIONAL CONTROL VALVES; MOTORS; CYLINDERS; PRESSURE CONTROL VALVES; ACCUMULATORS; HOSES, TUBES, AND PIPES; AND, FLOW CONTROL VALVES.

AVAILABILITY: INDUSTRIAL MEDIA, INC., 6303 28TH ST., S.E., GRAND RAPIDS, MI 49506

IRIS ACCESSION NUMBER: EW007235

PUBLICATION DATE: MAR 79

TITLE: ORGANIZATION AND METHODS STUDY SEWER OPERATIONS DIVISION.

DESCRIPTOR: *CANADA; *FACILITIES; *MAINTENANCE; *MANAGEMENT; MANPOWER; *OPERATIONS (WASTEWATER); *OTTAWA; *PERFORMANCE EVALUATION; *SEWER SYSTEMS; *SEWERS; *WASTEWATER COLLECTION; *WASTEWATER

DESCRIPTIVE NOTE: 325P.

ABSTRACT: THIS REPORT REVIEWS THE OPERATIONS AND METHODS OF THE SEWER OPERATIONS DIVISION OF THE PHYSICAL ENVIRONMENT DEPARTMENT OF THE CITY OF OTTAWA. THE RESEARCH WAS BASED ON IN-DEPTH INTERVIEWS WITH SENIOR SUPERVISORY STAFF, DATA EXTRACTED FROM THE MAINTENANCE MANAGEMENT SYSTEM, INFORMATION RECORDED IN A PUBLICATION OF THE USEPA, NUMEROUS ARTICLES IN VARIOUS TRADE MAGAZINES, AND A HOST OF DISCUSSIONS WITH PERSONNEL OF OTHER OPERATING DIVISIONS.

AVAILABILITY: CORPORATION OF THE CITY OF OTTAWA, PHYSICAL ENVIRONMENTAL DEPARTMENT, OPERATIONS BRANCH, OTTAWA, CANADA

IRIS ACCESSION NUMBER: EW007238

PUBLICATION DATE: FEB 75

TITLE: OIL SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN REVIEW.

DESCRIPTOR: FACILITIES; *INSPECTION; INSPECTORS; *INSTRUCTIONAL MATERIALS; *OIL SPILLS; *POLLUTION CONTROL; *POST SECONDARY EDUCATION; *SPILL PREVENTION; *TEACHING GUIDES

DESCRIPTIVE NOTE: 378P.

ABSTRACT: THIS PUBLICATION DESCRIBES A TRAINING PROGRAM BASED ON THE USEPA OIL SPILL PREVENTION CONTROL AND COUNTERMEASURE REGULATION. THIS INSTRUCTOR'S MANUAL, AND THE COURSE WHICH IT SERVES, IS DESIGNED TO ACQUAINT INSPECTORS WITH THE FUNDAMENTALS OF THE STRUCTURE AND FUNCTION OF SOME OF THE FACILITIES THAT WILL FALL UNDER THEIR PURVIEW. SECTIONS INCLUDE: ELEMENTS OF A SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN; TECHNICAL REVIEW OF AFFECTED FACILITIES; AREAS OF POTENTIAL OIL SPILLS; OIL SPILL PREVENTION; OIL SPILL COUNTERMEASURES; AND SPILL PREVENTION CONTROL AND COUNTERMEASURE INSPECTION PROCEDURES.

AVAILABILITY: U.S. ENVIRONMENTAL PROTECTION AGENCY, WASHINGTON, DC 20402

IRIS ACCESSION NUMBER: EW007243

PUBLICATION DATE: JAN 78

TITLE: PERFORMANCE EVALUATION AND TROUBLESHOOTING AT MUNICIPAL WASTEWATER TREATMENT FACILITIES.

DESCRIPTOR: DESIGN; *EVALUATION; INSPECTION; *INSTRUCTIONAL MATERIALS; *MANUALS; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *POST SECONDARY EDUCATION; PROBLEM SOLVING; *TROUBLESHOOTING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 397P.

ABSTRACT: THE PURPOSE OF THIS MANUAL IS TO PROVIDE A TECHNICAL FIELD GUIDE OR REFERENCE DOCUMENT FOR USE IN IMPROVING THE PERFORMANCE OF MUNICIPAL WASTEWATER TREATMENT PLANTS. IT IS ALSO INTENDED FOR USE IN EPA AND STATE TRAINING COURSES FOR PLANT INSPECTORS AND PERFORMANCE EVALUATORS. IT IS WRITTEN FOR TECHNICIANS WITH SOME EXPERIENCE IN PLANT OPERATION, DESIGN, OR PERFORMANCE EVALUATION. THE FOUR MAJOR SECTIONS ARE: (1) INTRODUCTION; (2) GENERAL PROCEDURES FOR EVALUATION AND TROUBLESHOOTING; (3) OVERALL SYSTEM CONSIDERATIONS; AND (4) UNIT PROCESS EVALUATION AND TROUBLESHOOTING EVALUATION.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON, DC 20402

IRIS ACCESSION NUMBER: EW007262
PUBLICATION DATE: 78

TITLE: EVALUATION OF FLOW MEASUREMENT INSTALLATIONS IN
WASTEWATER TREATMENT FACILITIES - TRAINING MANUAL.

DESCRIPTOR: *EVALUATION; FACILITIES; *FLOW MEASUREMENT;
*FLUMES; INSTALLATION; *INSTRUCTIONAL MATERIALS;
*MEASUREMENT; *POST SECONDARY EDUCATION; *WASTEWATER
TREATMENT; *WEIRS

DESCRIPTIVE NOTE: 122P. PRICE: \$1.00 PER DOCUMENT PLUS
\$.03 PER PAGE. EPA-430/1-78-003

ABSTRACT: THIS TRAINING MANUAL PRESENTS MATERIAL ON THE
INSTALLATION AND EVALUATION OF FLOW MEASUREMENT DEVICES FOR
WASTEWATER TREATMENT FACILITIES. SECTIONS INCLUDE: (1)
MEASUREMENT OF WASTEWATER FLOWS - SHARP-CRESTED WEIRS; (2)
MEASUREMENT OF WASTEWATER FLOWS - PARSHALL FLUMES; (3) FLOW
SENSING, RECORDING, AND TOTALIZING DEVICES; AND (4)
EVALUATION OF FLOW INSTALLATIONS.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, 1200
CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212-1792.

IRIS ACCESSION NUMBER: EW007266

PUBLICATION DATE: 74

TITLE: WATER CHEMISTRY.
PERSONAL AUTHOR: SEIDEL, GEORGE R.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMISTRY; *CHEMICAL
REACTIONS; ENGINEERING; *INSTRUCTIONAL MATERIALS; *POST
SECONDARY EDUCATION; *TEACHING GUIDES; *WATER QUALITY;
*WATER RESOURCES; WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 340P.

ABSTRACT: THIS MINICOURSE GUIDE PRESENTS MATERIAL ON THE
APPLICATION OF BASIC WATER CHEMISTRY TO WATER RESOURCE
PROBLEM SOLVING. CHAPTERS INCLUDE: WATER - ITS CHEMICAL
NATURE; THE THREE STAGES OF MATTER; WATER AND THE ENGINEER;
EQUILIBRIUM CONSTANTS; SOLUBILITY PRODUCT CONSTANTS; PH AND
HYDROGEN ION CONCENTRATION; ACIDS AND BASES; BUFFERS;
OXIDATION-REDUCTION REACTIONS; ELECTROCHEMISTRY; BACTERIA IN
WATER; ALGAE; THE CARBON CYCLE - B.O.D., C.O.D.; THE
NITROGEN CYCLE; THE PURIFICATION OF WATER; WASTEWATER
TREATMENT; AND, ANALYZING WATER.

AVAILABILITY: U.S. ENVIRONMENTAL PROTECTION AGENCY, OFFICE
OF WATER PROGRAMS, WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW007278

PUBLICATION DATE: NOV 80

TITLE: FINAL REPORT 109(B) STATE TRAINING CENTER FACILITY

ASSESSMENT, PROGRAM EVALUATION, AND GUIDE DEVELOPMENT.
DESCRIPTOR: CASE STUDIES; CONSTRUCTION GRANTS;
ENVIRONMENTAL LEGISLATION; *EVALUATION; *FEDERAL WATER
POLLUTION CONTROL ACT; *109(B) PROGRAMS; *PROGRAM
EVALUATION; *PROJECT REPORTS; *STATE PROGRAMS; *TRAINING;
WORKSHOPS

DESCRIPTIVE NOTE: 269P.

ABSTRACT: THIS REPORT REVIEWS AND EVALUATES THE 109(B)
PROGRAM. THE THREE MAJOR OBJECTIVES OF THIS REPORT ARE: (1)
TO AID IN THE DEVELOPMENT OF AN UP-TO-DATE SET OF 109(B)
GUIDANCE DOCUMENTS; (2) TO PRODUCE A DOCUMENT CHARACTERIZING
EXISTING 109(B) CENTERS, INCLUDING A DESCRIPTION OF VARIOUS
METHODS FOR EVALUATING THE EFFECTIVENESS OF A GIVEN CENTER,
AND (3) TO CONDUCT AND REPORT ON A 109(B) WORKSHOP IN WHICH
REPRESENTATIVES OF EXISTING 109(B) STATEWIDE TRAINING
CENTERS WERE ASKED TO PARTICIPATE. CHAPTERS INCLUDE: HISTORY
OF 109(B) LEGISLATION; SUMMARY DESCRIPTION OF EXISTING
109(B) PROGRAM; PERCEIVED PROBLEMS WITH 109(B) PROGRAM AND
CURRENT (1978) GUIDANCE DOCUMENTS; 109(B) APPLICATION AND
ACQUISITION PROCESS; ROLE OF 109(B) IN STATEWIDE TRAINING
PROGRAMS; DESCRIPTION OF SELECTED EXISTING OR PLANNED 109(B)
STATE TRAINING FACILITIES; AND, SUMMARY OF 109(B) WORKSHOP
ACTIVITIES.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT
PRINTING OFFICE, WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW007281
PUBLICATION DATE: JUL 81

TITLE: INORGANIC ANALYSIS IN WATER QUALITY CONTROL
PROGRAMS. INSTRUCTOR'S GUIDE.

PERSONAL AUTHOR: KRONER, AUPREY

DESCRIPTOR: *CHEMICAL ANALYSIS; ENVIRONMENTAL EDUCATION;
ENVIRONMENTAL TECHNICIANS; INSERVICE EDUCATION;
*INSTRUCTIONAL MATERIALS; JOB SKILLS; POST SECONDARY
EDUCATION; *QUALITY CONTROL; SCIENCE EDUCATION; *TEACHING
GUIDES; TECHNICAL EDUCATION; WATER POLLUTION; *WATER
RESOURCES; *WATER QUALITY ANALYSIS; WATER TREATMENT

DESCRIPTIVE NOTE: PRICE: \$1.00 PER DOCUMENT PLUS \$.03 PER
PAGE. EPA-430/1-81-105

ABSTRACT: THIS TWO-PART INSTRUCTOR'S GUIDE WAS DESIGNED FOR
A FIVE-DAY COURSE FOR CHEMISTS AND TECHNICIANS WITH LITTLE
OR NO EXPERIENCE IN INORGANIC ANALYSES. PART I PROVIDES
INFORMATION ON COURSE PLANNING AND MANAGEMENT INCLUDING
COURSE DESCRIPTION, STAFF RESPONSIBILITIES, SUGGESTED COURSE
PLAN AND AGENDA, TIMELINE FOR PLANNING AND CONDUCTING THE
COURSE, EQUIPMENT LIST, DESCRIPTION OF NATURE, AND SOURCES
AND AVAILABILITY OF INSTRUCTIONAL RESOURCES. PART II
CONTAINS INSTRUCTIONAL PACKAGE WORKSHEETS WHICH PROVIDE A
PERSPECTIVE OF EACH ANALYTICAL PROCEDURE, THE LEARNING
ACHIEVEMENT LEVELS THE STUDENTS SHOULD ATTAIN, AVAILABLE
AUDIOVISUAL AND OTHER INSTRUCTIONAL RESOURCES, AND AN
EXAMPLE COURSE OF ACTION IN PRE-COURSE PREPARATION AND

CLASSROOM/LABORATORY INSTRUCTION. TOPICS INCLUDED WITHIN THE COURSE ARE: ACIDITY, ALKALINITY, HARDNESS, CHLORINE, TOTAL PHOSPHORUS, FLUORIDE, NITRATE AND NITRITE NITROGEN, TOTAL AND SUSPENDED SOLIDS, TURBIDITY AND SPECIFIC CONDUCTANCE, SAMPLE HANDLING, COMPLIANCE METHODOLOGY, ACCURACY, PRECISION AND ERROR OF DATA, LABORATORY SAFETY PRACTICES, AND ELEMENTS OF QUALITY ASSURANCE PROGRAMS.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS RD., ROOM 310, COLUMBUS, OH 43212-1792

IRIS ACCESSION NUMBER: EW007282

PUBLICATION DATE: JUL 81

TITLE: INORGANIC ANALYSES IN WATER QUALITY CONTROL PROGRAMS. TRAINING MANUAL.

PERSONAL AUTHOR: KRONER, AUDREY; AND OTHERS

DESCRIPTOR: *CHEMICAL ANALYSIS; ENVIRONMENTAL EDUCATION; ENVIRONMENTAL TECHNICIANS; INSERVICE EDUCATION; *INSTRUCTIONAL MATERIALS; JOB SKILLS; *LABORATORY MANUALS; POST SECONDARY EDUCATION; *QUALITY CONTROL; SCIENCE EDUCATION; TECHNICAL EDUCATION; WATER POLLUTION; *WATER RESOURCES; *WATER QUALITY ANALYSIS; WATER TREATMENT

DESCRIPTIVE NOTE: 175P. PRICE: \$1.00 PER DOCUMENT PLUS \$.03 PER PAGE. EPA-430/1-81-105

ABSTRACT: THIS LECTURE/LABORATORY MANUAL FOR A FIVE-DAY COURSE DEALS WITH THE ANALYSIS OF SELECTED INORGANIC POLLUTANTS. THE MANUAL IS AN INSTRUCTIONAL AID FOR CLASSROOM PRESENTATIONS TO THOSE WITH LITTLE OR NO EXPERIENCE IN THE FIELD, BUT HAVING ONE YEAR (OR EQUIVALENT) OF COLLEGE LEVEL INORGANIC CHEMISTRY, ONE SEMESTER OF COLLEGE LEVEL QUANTITATIVE ANALYSIS (OR EQUIVALENT), AND BASIC LABORATORY SKILLS. TOPICS INCLUDE: ACIDITY, ALKALINITY, HARDNESS, CHLORINE, TOTAL PHOSPHORUS, FLUORIDE, NITRATE AND NITRITE NITROGEN, TOTAL AND SUSPENDED SOLIDS, TURBIDITY AND SPECIFIC CONDUCTANCE, SAMPLE HANDLING, COMPLIANCE METHODOLOGY, ACCURACY, PRECISION AND ERROR OF DATA, LABORATORY SAFETY PRACTICES, AND ELEMENTS OF QUALITY ASSURANCE PROGRAMS.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS RD., ROOM 310, COLUMBUS, OH 43212-1792

IRIS ACCESSION NUMBER: EW007283

PUBLICATION DATE: 81

TITLE: COST-EFFECTIVENESS ANALYSIS. WORKING FOR CLEAN WATER: AN INFORMATION PROGRAM FOR ADVISORY GROUPS. INSTRUCTOR GUIDE.

PERSONAL AUTHOR: BUSKIRK, E. DRANNON, JR.

DESCRIPTOR: *ADULT EDUCATION; *CITIZEN PARTICIPATION; *COST EFFECTIVENESS; ECONOMIC FACTORS; ECONOMICS; *ENVIRONMENTAL EDUCATION; NONSCHOOL EDUCATIONAL PROGRAMS; PLANNING; *POST

SECONDARY EDUCATION; SCIENCE EDUCATION; SOCIAL STUDIES; *WATER RESOURCES; *WASTEWATER TREATMENT PLANTS

DESCRIPTIVE NOTE: PRICE: \$10.00 PLUS POSTAGE. EPA-CT900980-01

ABSTRACT: PRESENTED IS THE INSTRUCTOR'S MANUAL FOR A ONE-HOUR PRESENTATION ON COST-EFFECTIVENESS ANALYSIS, BASIC ASSESSMENT PROCEDURES, AND THE ROLE OF CITIZENS IN THE ANALYSIS OF ALTERNATIVES. A SUPPLEMENTARY AUDIOVISUAL PROGRAM IS AVAILABLE. THESE MATERIALS ARE PART OF THE WORKING FOR CLEAN WATER PROJECT WHICH IS INTENDED TO HELP CITIZEN ADVISORY GROUPS IMPROVE DECISION MAKING IN WATER QUALITY PLANNING. (ED 206 476)

AVAILABILITY: SMEAC INFORMATION REFERENCE CENTER, 1200 CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007284

PUBLICATION DATE: 81

TITLE: ENVIRONMENTAL ASSESSMENT. WORKING FOR CLEAN WATER: AN INFORMATION PROGRAM FOR ADVISORY GROUPS. INSTRUCTOR GUIDE.

PERSONAL AUTHOR: BUSKIRK, E. DRANNON, JR.

DESCRIPTOR: *ADULT EDUCATION; *CITIZEN PARTICIPATION; *ENVIRONMENTAL EDUCATION; *ENVIRONMENTAL INFLUENCES; NONSCHOOL EDUCATIONAL PROGRAMS; *PLANNING; POST SECONDARY EDUCATION; SCIENCE EDUCATION; *WASTE DISPOSAL; WATER RESOURCES; ENVIRONMENTAL ASSESSMENT TECHNIQUE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PRICE: \$10.00 PLUS POSTAGE. EPA-CT900980-01

ABSTRACT: DESCRIBED IS AN HOUR-LONG LEARNING SESSION ON ENVIRONMENTAL ASSESSMENT THAT IS DESIGNED TO HELP CITIZEN ADVISORY GROUPS IMPROVE DECISION MAKING IN WATER QUALITY PLANNING. THE INSTRUCTOR'S GUIDE ADDRESSES: (1) ENVIRONMENTAL CONSIDERATIONS IN WATER QUALITY PLANNING, AND (2) THE IDENTIFICATION OF PRIMARY AND SECONDARY IMPACTS OF WASTEWATER PROJECTS. A SUPPLEMENTARY AUDIOVISUAL PROGRAM IS AVAILABLE. THESE MATERIALS ARE PART OF THE WORKING FOR CLEAN WATER PROJECT. (ED 206 477)

AVAILABILITY: SMEAC INFORMATION REFERENCE CENTER, 1200 CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007285

PUBLICATION DATE: 81

TITLE: FACILITY PLANNING IN THE CONSTRUCTION GRANTS PROGRAM. WORKING FOR CLEAN WATER: AN INFORMATION PROGRAM FOR ADVISORY GROUPS. INSTRUCTOR GUIDE.

PERSONAL AUTHOR: BUSKIRK, E. DRANNON, JR.; COLE, CHARLES A.

200

DESCRIPTOR: *ADULT EDUCATION; *CITIZEN PARTICIPATION;
*COMMUNITY PLANNING; *ENVIRONMENTAL EDUCATION; FEDERAL AID;
NONSCHOOL EDUCATIONAL PROGRAMS; PLANNING; POST SECONDARY
EDUCATION; SCIENCE EDUCATION; *WASTE DISPOSAL; *WATER
RESOURCES; *WASTEWATER TREATMENT; WASTEWATER TREATMENT
PLANTS

DESCRIPTIVE NOTE: PRICE: \$10.00 PLUS POSTAGE. EPA-
CT900980-01

ABSTRACT: WASTEWATER FACILITY PLANNING IS AN ESSENTIAL
COMPONENT OF THE FEDERAL CONSTRUCTION GRANTS PROCESS.
PRESENTED IN THIS INSTRUCTOR'S GUIDE IS A ONE-HOUR
PRESENTATION ON FACILITY PLANNING INTENDED FOR CITIZEN
ADVISORY GROUPS. THE GUIDE IS PART OF THE WORKING FOR CLEAN
WATER PROJECT, WHICH ALSO INCLUDES A SUPPLEMENTARY
AUDIOVISUAL PRESENTATION. (ED 206 478)

AVAILABILITY: SMEAC INFORMATION REFERENCE CENTER, 1200
CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007286

PUBLICATION DATE: 81

TITLE: GROUNDWATER CONTAMINATION. WORKING FOR CLEAN WATER:
AN INFORMATION PROGRAM FOR ADVISORY GROUPS. INSTRUCTOR
GUIDE.

PERSONAL AUTHOR: COLE, CHARLES A.

DESCRIPTOR: *ADULT EDUCATION; *CITIZEN PARTICIPATION;
*ENVIRONMENTAL EDUCATION; GEOLOGY; NONSCHOOL EDUCATIONAL
PROGRAMS; POLLUTION; *POST SECONDARY EDUCATION; SCIENCE
EDUCATION; *WATER POLLUTION; *WATER RESOURCES; *GROUNDWATER;
HYDROLOGY

DESCRIPTIVE NOTE: PRICE: \$10.00 PLUS POSTAGE. EPA-
CT900980-0

ABSTRACT: DESCRIBED IS A PRESENTATION AND LEARNING SESSION
ON GROUNDWATER, WHICH IS INTENDED TO EDUCATE ADVISORY GROUPS
INTERESTED IN IMPROVING WATER QUALITY DECISION MAKING. AMONG
THE AREAS ADDRESSED ARE THE IMPORTANCE OF GROUNDWATER,
SOURCES OF CONTAMINATION, AND GROUNDWATER POLLUTION CONTROL
PROGRAMS. THESE MATERIALS ARE PART OF THE WORKING FOR CLEAN
WATER PROJECT FOR CITIZEN ORGANIZATIONS. (ED 206 479)

AVAILABILITY: SMEAC INFORMATION REFERENCE CENTER, 1200
CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007287

PUBLICATION DATE: 81

TITLE: INDUSTRIAL PRETREATMENT. WORKING FOR CLEAN WATER:
AN INFORMATION PROGRAM FOR ADVISORY GROUPS. INSTRUCTOR
GUIDE.

PERSONAL AUTHOR: NESBITT, JOHN B.; COLE, CHARLES A.

DESCRIPTOR: *ADULT EDUCATION; *CITIZEN PARTICIPATION;
*ENVIRONMENTAL EDUCATION; ENVIRONMENTAL STANDARDS;
*INDUSTRY; NONSCHOOL EDUCATIONAL PROGRAMS; POST SECONDARY
EDUCATION; SCIENCE EDUCATION; *WASTE DISPOSAL; *WATER
RESOURCES; *WASTEWATER TREATMENT; WASTEWATER TREATMENT
PLANTS

DESCRIPTIVE NOTE: PRICE: \$10.00 PLUS POSTAGE. EPA-
CT900980-01

ABSTRACT: WITH PROPER PRETREATMENT, INDUSTRIAL WASTES CAN
OFTEN BE TREATED TOGETHER WITH MUNICIPAL WASTEWATER.
PARTICIPANTS IN THE ONE-HOUR SESSION DESCRIBED IN THE
INSTRUCTOR'S MANUAL WILL LEARN ABOUT PRETREATMENT OPTIONS,
OBJECTIVES OF PRETREATMENT, AND REGULATIONS GOVERNING THE
DEVELOPMENT AND OPERATION OF A PRETREATMENT PROGRAM. A
SUPPLEMENTARY SLIDE-TAPE PRESENTATION IS AVAILABLE AS PART
OF THE WORKING FOR CLEAN WATER PROJECT. THE PROGRAM IS
DESIGNED TO HELP CITIZEN ADVISORY GROUPS IMPROVE DECISION
MAKING IN WATER QUALITY PLANNING. (ED 206 480)

AVAILABILITY: SMEAC INFORMATION REFERENCE CENTER, 1200
CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007286

PUBLICATION DATE: 81

TITLE: INNOVATIVE AND ALTERNATIVE TECHNOLOGIES. WORKING
FOR CLEAN WATER: AN INFORMATION PROGRAM FOR ADVISORY
GROUPS. INSTRUCTOR GUIDE.

PERSONAL AUTHOR: COLE, CHARLES A.

DESCRIPTOR: *ADULT EDUCATION; *CITIZEN PARTICIPATION;
*ENVIRONMENTAL EDUCATION; NONSCHOOL EDUCATIONAL PROGRAMS;
PLANNING; *POST SECONDARY EDUCATION; SCIENCE EDUCATION;
*TECHNOLOGICAL ADVANCEMENT; TECHNOLOGY; *WASTE DISPOSAL;
WATER RESOURCES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PRICE: \$10.00 PLUS POSTAGE. EPA-
CT900980-01

ABSTRACT: INNOVATIVE AND ALTERNATIVE METHODS OF WASTEWATER
TREATMENT CAN IMPROVE THE EFFICIENCY AND LOWER THE COST OF
WASTE TREATMENT PROCEDURES. DESCRIBED IN THIS INSTRUCTOR'S
GUIDE IS A ONE-HOUR LEARNING SESSION FOR CITIZENS INTERESTED
IN IMPROVING WATER QUALITY PLANNING AND DECISION MAKING.
AMONG THE TOPICS COVERED ARE THE NEED FOR ALTERNATIVE
WASTEWATER TREATMENT METHODS, VARIOUS AVAILABLE
TECHNOLOGIES, SELECTION PROCEDURES, AND ECONOMIC
CONSIDERATIONS. A SUPPLEMENTARY SLIDE-TAPE PROGRAM IS
AVAILABLE AS PART OF THE WORKING FOR CLEAN WATER PROJECT.
(ED 206 481)

AVAILABILITY: SMEAC INFORMATION REFERENCE CENTER, 1200
CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007289

PUBLICATION DATE: 81

TITLE: LAND TREATMENT. WORKING FOR CLEAN WATER: AN INFORMATION PROGRAM FOR ADVISORY COMMITTEES. INSTRUCTOR GUIDE.

DESCRIPTOR: *ADULT EDUCATION; *CITIZEN PARTICIPATION; *COMMUNITY PLANNING; *ENVIRONMENTAL EDUCATION; *LAND USE; *NONSCHOOL EDUCATIONAL PROGRAMS; *POST SECONDARY EDUCATION; *SCIENCE EDUCATION; *TECHNOLOGY; *WASTE DISPOSAL; *WATER RESOURCES; *LAND TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PRICE: \$10.00 PLUS POSTAGE. EPA-CT900980-01

ABSTRACT: PRESENTED IS AN INSTRUCTOR'S MANUAL FOR A LEARNING SESSION CENTERED ON THE METHODOLOGY AND FEASIBILITY OF LAND TREATMENT OF MUNICIPAL WASTEWATER. A SUPPLEMENTARY SLIDE-TAPE PROGRAM IS AVAILABLE. THESE MATERIALS ARE COMPONENTS OF THE WORKING FOR CLEAN WATER PROJECT, WHICH IS INTENDED TO EDUCATE ADVISORY GROUPS WHO ARE INTERESTED IN IMPROVING DECISION MAKING IN WATER QUALITY PLANNING. (ED 206 482)

AVAILABILITY: SMEAC INFORMATION REFERENCE CENTER, 1200 CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007290

PUBLICATION DATE: 81

TITLE: MULTIPLE USE. WORKING FOR CLEAN WATER: AN INFORMATION PROGRAM FOR ADVISORY GROUPS. INSTRUCTOR GUIDE.

PERSONAL AUTHOR: BUSKIRK, E. DRANNON, JR.

DESCRIPTOR: *ADULT EDUCATION; *CITIZEN PARTICIPATION; *COMMUNITY PLANNING; *ENVIRONMENTAL EDUCATION; *NONSCHOOL EDUCATIONAL PROGRAMS; *POST SECONDARY EDUCATION; *RECREATION; *RECREATIONAL FACILITIES; *SCIENCE EDUCATION; *WASTE DISPOSAL; *WATER RESOURCES

DESCRIPTIVE NOTE: PRICE: \$10.00 PLUS POSTAGE. EPA-CT900980-01

ABSTRACT: EXAMINED IS THE USE OF WASTEWATER TREATMENT FACILITIES FOR RECREATION, EDUCATION, AND OPEN SPACE. OBJECTIVES OF THE LEARNING SESSION DESCRIBED IN THIS INSTRUCTOR'S MANUAL ARE TO: (1) INTRODUCE OPPORTUNITIES FOR MULTIPLE USE, (2) IDENTIFY AREAS FOR CITIZEN INPUT IN FACILITY PLANNING AND DESIGN, AND (3) PROVIDE CRITERIA FOR DETERMINING LOCAL NEEDS AND INVOLVEMENT. AS PART OF THE WORKING FOR CLEAN WATER PROJECT, A SLIDE-TAPE PROGRAM FOR THIS UNIT IS ALSO AVAILABLE. THESE MATERIALS ARE DESIGNED FOR CITIZEN ADVISORY GROUPS INTERESTED IN IMPROVING DECISION MAKING IN WATER QUALITY PLANNING. (ED 206 483)

AVAILABILITY: SMEAC INFORMATION REFERENCE CENTER, 1200 CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212

203

IRIS ACCESSION NUMBER: EW007291

PUBLICATION DATE: 81

TITLE: MUNICIPAL WASTEWATER PROCESSES. WORKING FOR CLEAN WATER: AN INFORMATION PROGRAM FOR ADVISORY GROUPS. INSTRUCTOR GUIDE.

PERSONAL AUTHOR: STOLTZFUS, LORNA

DESCRIPTOR: *ADULT EDUCATION; *CITIZEN PARTICIPATION; *ENVIRONMENTAL EDUCATION; *ENVIRONMENTAL STANDARDS; *NONSCHOOL EDUCATIONAL PROGRAMS; *PLANNING; *POST SECONDARY EDUCATION; *SCIENCE EDUCATION; *TECHNOLOGY; *URBAN AREAS; *WASTE DISPOSAL; *WATER RESOURCES; *WASTEWATER TREATMENT; *WASTEWATER TREATMENT PLANTS

DESCRIPTIVE NOTE: PRICE: \$10.00 PLUS POSTAGE. EPA-CT900980-01

ABSTRACT: DESCRIBED IS A ONE-HOUR OVERVIEW OF THE UNIT PROCESSES WHICH COMPRISE A MUNICIPAL WASTEWATER TREATMENT SYSTEM. TOPICS COVERED IN THIS INSTRUCTOR'S GUIDE INCLUDE TYPES OF POLLUTANTS ENCOUNTERED, TREATMENT METHODS, AND PROCEDURES BY WHICH WASTEWATER TREATMENT PROCESSES ARE SELECTED. A SLIDE-TAPE PROGRAM IS AVAILABLE TO SUPPLEMENT THIS COMPONENT OF THE WORKING FOR CLEAN WATER PROJECT. THE PROGRAM'S GOAL IS TO PROVIDE TECHNICAL INFORMATION IN LAY LANGUAGE TO CITIZEN GROUPS INTERESTED IN WATER QUALITY PLANNING. (ED 206 484)

AVAILABILITY: SMEAC INFORMATION REFERENCE CENTER, 1200 CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007292

PUBLICATION DATE: 81

TITLE: NONPOINT SOURCE POLLUTION: AGRICULTURE, FORESTRY, AND MINING. WORKING FOR CLEAN WATER: AN INFORMATION PROGRAM FOR ADVISORY GROUPS. INSTRUCTOR GUIDE.

PERSONAL AUTHOR: BUSKIRK, E. DRANNON, JR.

DESCRIPTOR: *ADULT EDUCATION; *AGRICULTURE; *CITIZEN PARTICIPATION; *ENVIRONMENTAL EDUCATION; *FORESTRY; *LAND USE; *NONSCHOOL EDUCATIONAL PROGRAMS; *POST SECONDARY EDUCATION; *SCIENCE EDUCATION; *WATER POLLUTION; *WATER RESOURCES; *MINING INDUSTRIES; *NONPOINT SOURCE POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: PRICE: \$10.00 PLUS POSTAGE. EPA-CT900980-01

ABSTRACT: NONPOINT SOURCES OF POLLUTION HAVE DIFFUSE ORIGINS AND ARE MAJOR CONTRIBUTORS TO WATER QUALITY PROBLEMS IN BOTH URBAN AND RURAL AREAS. ADDRESSED IN THIS INSTRUCTOR'S MANUAL ARE THE IDENTIFICATION, ASSESSMENT, AND MANAGEMENT OF NONPOINT SOURCE POLLUTANTS RESULTING FROM MINING, AGRICULTURE, AND FORESTRY. THE UNIT, PART OF THE WORKING FOR CLEAN WATER PROJECT, IS DESIGNED FOR CITIZEN ADVISORY GROUPS INTERESTED IN WATER QUALITY PLANNING. ALSO

204

AVAILABLE IS A SUPPLEMENTARY AUDIOVISUAL PROGRAM. (ED 206 485)

AVAILABILITY: SMEAC INFORMATION REFERENCE CENTER, 1200 CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007293

PUBLICATION DATE: 81

TITLE: PUBLIC PARTICIPATION. WORKING FOR CLEAN WATER: AN INFORMATION PROGRAM FOR ADVISORY GROUPS. INSTRUCTOR GUIDE.

PERSONAL AUTHOR: BUSKIRK, E. DRANNON, JR.; AUKER, DENNIS

DESCRIPTOR: *ADULT EDUCATION; *ADVISORY COMMITTEES; *CITIZEN PARTICIPATION; *COMMUNITY ACTION; COMMUNITY PLANNING; *ENVIRONMENTAL EDUCATION; NONSCHOOL EDUCATIONAL PROGRAMS; POST SECONDARY EDUCATION; SCIENCE EDUCATION; *SOCIAL STUDIES; WATER RESOURCES

DESCRIPTIVE NOTE: PRICE: \$10.00 PLUS POSTAGE. EPA-CT900980-01

ABSTRACT: PARTICIPANTS IN THE LEARNING SESSION DESCRIBED WILL BECOME FAMILIAR WITH SUCCESSFUL PUBLIC PARTICIPATION STRATEGIES AND LEARN ABOUT THE ROLE OF ADVISORY GROUPS IN DEVELOPING PUBLIC PARTICIPATION PROGRAMS. THE MANUAL IS DESIGNED TO GUIDE INSTRUCTORS WHO WILL FACILITATE THE 65-MINUTE SESSION FOR CITIZEN GROUPS. A SLIDE-TAPE PROGRAM IS AVAILABLE TO SUPPLEMENT THIS COMPONENT OF THE WORKING FOR CLEAN WATER PROGRAM. (ED 206 486)

AVAILABILITY: SMEAC INFORMATION REFERENCE CENTER, 1200 CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007294

PUBLICATION DATE: 81

TITLE: ROLE OF ADVISORY GROUPS. WORKING FOR CLEAN WATER: AN INFORMATION PROGRAM FOR ADVISORY COMMITTEES. INSTRUCTOR GUIDE.

DESCRIPTOR: ADULT EDUCATION; *ADVISORY COMMITTEES; *CITIZEN PARTICIPATION; COMMUNITY ACTION; COMMUNITY PLANNING; *ENVIRONMENTAL EDUCATION; NONSCHOOL EDUCATIONAL PROGRAMS; ORGANIZATIONS (GROUPS); *POST SECONDARY EDUCATION; SCIENCE EDUCATION; *SOCIAL STUDIES; *WATER RESOURCES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PRICE: \$10.00 PLUS POSTAGE. EPA-CT900980-01

ABSTRACT: PRESENTED IS AN INSTRUCTOR'S MANUAL FOR CONDUCTING A LEARNING SESSION ABOUT PUBLIC PARTICIPATION IN WATER QUALITY PLANNING. PARTICIPANTS IN THE SESSION LEARN ABOUT THE PURPOSE, ORGANIZATION, AND ACTIVITIES OF CITIZEN ADVISORY GROUPS. THE MANUAL, A COMPONENT OF THE WORKING FOR CLEAN WATER PROJECT, IS DESIGNED FOR USE IN CONJUNCTION WITH

A SLIDE-TAPE PROGRAM. (ED 206 487)

AVAILABILITY: SMEAC INFORMATION REFERENCE CENTER, 1200 CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007295

PUBLICATION DATE: 81

TITLE: SMALL SYSTEMS. WORKING FOR CLEAN WATER: AN INFORMATION PROGRAM FOR ADVISORY GROUPS. INSTRUCTOR GUIDE.

PERSONAL AUTHOR: COLE, CHARLES A.

DESCRIPTOR: *ADULT EDUCATION; *CITIZEN PARTICIPATION; *ENVIRONMENTAL EDUCATION; NONSCHOOL EDUCATIONAL PROGRAMS; *POST SECONDARY EDUCATION; RURAL AREAS; SCIENCE EDUCATION; *TECHNOLOGY; *WASTE DISPOSAL; WATER RESOURCES; SEPTIC SYSTEMS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PRICE: \$10.00 PLUS POSTAGE. EPA-CT900980-01

ABSTRACT: THE REHABILITATION OF EXISTING ON-SITE WASTEWATER TREATMENT FACILITIES IS OFTEN THE BEST APPROACH TO MEETING WASTE DISPOSAL NEEDS. UPON COMPLETING THE LEARNING SESSION DESCRIBED IN THIS INSTRUCTOR'S GUIDE, PARTICIPANTS SHOULD UNDERSTAND THE TECHNOLOGY AND TREATMENT METHODS FOR LOW-VOLUME WASTEWATER FLOWS. THESE MATERIALS ARE PART OF THE WORKING FOR CLEAN WATER PROJECTS, WHICH IS INTENDED TO PROVIDE TECHNICAL INFORMATION IN LAY LANGUAGE TO CITIZEN GROUPS INTERESTED IN WATER QUALITY PLANNING. (ED 206 488)

AVAILABILITY: SMEAC INFORMATION REFERENCE CENTER, 1200 CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007296

PUBLICATION DATE: 81

TITLE: URBAN STORMWATER RUNOFF. WORKING FOR CLEAN WATER: AN INFORMATION PROGRAM FOR ADVISORY GROUPS. INSTRUCTOR GUIDE.

PERSONAL AUTHOR: SIMKO, ROBERT A.

DESCRIPTOR: ADULT EDUCATION; *CITIZEN PARTICIPATION; *ENVIRONMENTAL EDUCATION; NONSCHOOL EDUCATIONAL PROGRAMS; POLLUTION; *POST SECONDARY EDUCATION; SCIENCE EDUCATION; *URBAN AREAS; *WATER POLLUTION; *WATER RESOURCES; NONPOINT SOURCE POLLUTION; STORMWATER; WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: PRICE: \$10.00 PLUS POSTAGE. EPA-CT900980-01

ABSTRACT: URBAN STORMWATER RUNOFF COLLECTS POLLUTANTS FROM MANY PARTS OF A CITY AND IS AN IMPORTANT CONSIDERATION IN WATER QUALITY PLANNING. PRESENTED IS AN INSTRUCTOR'S GUIDE FOR A LEARNING SESSION COVERING VARIOUS ASPECTS OF URBAN

RUNOFF INCLUDING POLLUTANT SOURCES, MANAGEMENT PRACTICES, AND REGULATORY PROGRAMS. INTENDED FOR CITIZEN ADVISORY GROUPS, THIS GUIDE ALONG WITH THE SUPPLEMENTARY SLIDE-TAPE PROGRAM ARE PART OF THE WORKING FOR CLEAN WATER PROJECT. (ED 206 189)

AVAILABILITY: SMEAC INFORMATION REFERENCE CENTER, 1200 CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007297

PUBLICATION DATE: 81

TITLE: WASTEWATER FACILITIES OPERATION AND MANAGEMENT. WORKING FOR CLEAN WATER: AN INFORMATION PROGRAM FOR ADVISORY GROUPS. INSTRUCTOR GUIDE.

PERSONAL AUTHOR: LONG, DAVID A.

DESCRIPTOR: ADULT EDUCATION; *CITIZEN PARTICIPATION; *ENVIRONMENTAL EDUCATION; ENVIRONMENTAL TECHNICIANS; LABOR NEEDS; *LOCAL GOVERNMENT; NONSCHOOL EDUCATIONAL PROGRAMS; *POST SECONDARY EDUCATION; *WASTE DISPOSAL; *WATER RESOURCES; OPERATIONS (WASTEWATER); WASTEWATER TREATMENT; *WASTEWATER TREATMENT PLANTS

DESCRIPTIVE NOTE: PRICE: \$10.00 PLUS POSTAGE. EPA-CT900980-01

ABSTRACT: LOCAL COMMUNITIES MUST BE WILLING TO SPEND FUNDS TO ASSURE THE PROPER OPERATION AND MANAGEMENT OF WASTEWATER TREATMENT FACILITIES. DESIGNED FOR CITIZEN ADVISORY GROUPS. THE ONE-HOUR LEARNING SESSION DESCRIBED IN THIS INSTRUCTOR'S MANUAL COVERS PROBLEM AREAS, FEDERAL REQUIREMENTS, AND RESPONSIBILITIES FOR WASTEWATER PLANT OPERATIONS AND MANAGEMENT. A SUPPLEMENTARY FILM AND CITIZEN HANDBOOK ARE AVAILABLE. THESE MATERIALS ARE PART OF THE WORKING FOR CLEAN WATER PROJECT. (ED 206 490)

AVAILABILITY: SMEAC INFORMATION REFERENCE CENTER, 1200 CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007298

PUBLICATION DATE: 81

TITLE: WATER CONSERVATION AND REUSE. WORKING FOR CLEAN WATER: AN INFORMATION PROGRAM FOR ADVISORY COMMITTEES. INSTRUCTOR GUIDE.

DESCRIPTOR: *ADULT EDUCATION; *CITIZEN PARTICIPATION; COMMUNITY ACTION; CONSERVATION EDUCATION; *CONSERVATION (ENVIRONMENT); *ENVIRONMENTAL EDUCATION; NONSCHOOL EDUCATIONAL PROGRAMS; *POST SECONDARY EDUCATION; SCIENCE EDUCATION; *WATER RESOURCES

DESCRIPTIVE NOTE: PRICE: \$10.00 PLUS POSTAGE. EPA-CT900980-01

ABSTRACT: DESCRIBED IS A LEARNING SESSION ON WATER

CONSERVATION INTENDED FOR CITIZEN ADVISORY GROUPS INTERESTED IN WATER QUALITY PLANNING. TOPICS ADDRESSED IN THIS INSTRUCTOR'S MANUAL INCLUDE WATER CONSERVATION NEEDS, BENEFITS, PROGRAMS, TECHNOLOGY, AND PROBLEMS. THESE MATERIALS ARE COMPONENTS OF THE WORKING FOR CLEAN WATER PROJECT. (ED 206 491)

AVAILABILITY: SMEAC INFORMATION REFERENCE CENTER, 1200 CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007299

PUBLICATION DATE: 81

TITLE: FINANCIAL MANAGEMENT. WORKING FOR CLEAN WATER: AN INFORMATION PROGRAM FOR ADVISORY GROUPS. INSTRUCTOR GUIDE.

PERSONAL AUTHOR: AUKER, DENNIS; AND OTHERS

DESCRIPTOR: *ADULT EDUCATION; *CITIZEN PARTICIPATION; *ENVIRONMENTAL EDUCATION; *MONEY MANAGEMENT; NONSCHOOL EDUCATIONAL PROGRAMS; POST SECONDARY EDUCATION; SCIENCE EDUCATION; *WASTE DISPOSAL; WATER RESOURCES

DESCRIPTIVE NOTE: PRICE: \$10.00 PLUS POSTAGE. EPA-CT900980-01

ABSTRACT: THE IMPLEMENTATION OF WATER QUALITY PROGRAMS IN THE FACE OF RISING COSTS RAISES MANY QUESTIONS FOR STATE AND LOCAL COMMUNITIES, INCLUDING: HOW MUCH CAN TAXPAYERS AFFORD TO PAY? WHO WILL PAY? HOW CAN THEY PAY? DESCRIBED IS AN HOUR-LONG LEARNING SESSION ON FINANCIAL MANAGEMENT THAT IS DESIGNED TO HELP CITIZEN ADVISORY GROUPS PLAY AN INTEGRAL ROLE IN ADDRESSING THESE QUESTIONS. A SUPPLEMENTARY AUDIOVISUAL PROGRAM IS AVAILABLE. THESE MATERIALS ARE PART OF THE WORKING FOR CLEAN WATER PROJECT. (ED 035 727)

AVAILABILITY: SMEAC INFORMATION REFERENCE CENTER, 1200 CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007307

PUBLICATION DATE: NOV 81

TITLE: LEAK DETECTION PROGRAMS RECOVER REVENUES.

PERSONAL AUTHOR: SOWBY, STEPHEN E.

DESCRIPTOR: ARID REGIONS; *CASE STUDIES; CONSERVATION; *ECONOMIC FACTORS; FLOW MEASUREMENT; *LEAK DETECTION; *LEAKS; *MANAGEMENT; *WATER DISTRIBUTION; *WATER CONSERVATION; WATER LOSS; *WATER TREATMENT

DESCRIPTIVE NOTE: 562-564P.

ABSTRACT: DRAMATIC RECOVERIES OF "LOST" TREATED WATER IN THE SEMI-ARID WEST ARE DOCUMENTED IN THE SEVEN CASE HISTORIES REPORTED IN THIS ARTICLE. LEAKS AMOUNTED TO AS MUCH AS 33 PERCENT OF ONE UTILITY'S TREATED WATER. LACK OF METERING IN ANOTHER CITY CAUSED EXCESSIVE CUSTOMER

CONSUMPTION. IN STILL ANOTHER WESTERN CITY, INACCURATE METERS CAUSED REVENUE LOSSES OF \$100,000 ANNUALLY. INVESTMENT IN A CONSULTANT'S DETECTIVE WORK PROVED ECONOMICALLY SOUND IN ALL CASES.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N11

IRIS ACCESSION NUMBER: EW007208

PUBLICATION DATE: NOV 81

TITLE: LEAK DETECTION--CASE HISTORIES.

PERSONAL AUTHOR: PILZER, JOHN E.

DESCRIPTOR: *CASE STUDIES; ECONOMIC FACTORS; *LEAK DETECTION; LEAKS; MANAGEMENT; *UTILITIES; *WATER CONSERVATION; *WATER DISTRIBUTION; *WATER LOSS

DESCRIPTIVE NOTE: 565-567P.

ABSTRACT: THIS ARTICLE IS BASED ON THE REPLIES TO QUESTIONNAIRES SENT TO 150 WATER UTILITIES BY AWWA'S LEAK DETECTION COMMITTEE. THE AUTHOR QUOTES SOME OF THESE RESPONSES AND GIVES A DETAILED REPORT ON THE 30-YEAR LEAK DETECTION PROGRAM CARRIED OUT BY THE GARY-HOBART WATER CORPORATION OF GARY, IND.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N11

IRIS ACCESSION NUMBER: EW007309

PUBLICATION DATE: NOV 81

TITLE: INNOVATIVE DESIGN OVERCOMES REGULATORY CONSTRAINTS ON ELEVATED WATER STORAGE.

PERSONAL AUTHOR: HAVEN, ROBERT C.

DESCRIPTOR: *AESTHETICS; CONSTRUCTION; *DESIGN; FACILITIES; *INNOVATIONS; *REGULATIONS; *TANKS; UTILITIES; *WATER STORAGE

DESCRIPTIVE NOTE: 569-571P.

ABSTRACT: THIS ARTICLE REPORTS ON THE HAPPY ENDING TO A CONFLICT BETWEEN A NEED FOR ELEVATED WATER STORAGE STRUCTURE AND THE PUBLIC'S PERCEPTION OF VISUALLY UNATTRACTIVE "WATER TANKS." THE IMAGINATIVE DESIGN, PRODUCED AT A RELATIVELY SMALL EXTRA COST, HAS SUCH POPULAR APPEAL THAT PHOTOGRAPHS OF THE ORS HAVE APPEARED IN MANY PUBLICATIONS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N11

IRIS ACCESSION NUMBER: EW007310

PUBLICATION DATE: NOV 81

TITLE: LIME SOFTENING SLUDGE TREATMENT AND DISPOSAL.

DESCRIPTOR: *DEWATERING; *LAND APPLICATION; *LIME SOFTENING; *OPERATIONS (WATER); SLUDGE; *SLUDGE DISPOSAL; *SLUDGE TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 600-608P.

ABSTRACT: THE AWWA SLUDGE DISPOSAL COMMITTEE REPORTS ON THE PRODUCTION, METHODS OF PROCESSING, AND MEANS OF DISPOSING OF SOFTENING SLUDGES. THE AMOUNT OF SLUDGE PRODUCED CAN BE REDUCED BY 50 PERCENT IF WATER IS TREATED FOR HARDNESS WITH SODIUM HYDROXIDE RATHER THAN WITH SODA ASH AND LIME. MORE EFFICIENT MEANS OF REDUCING SOLIDS LOADS CAN ALSO REDUCE THE AMOUNT OF SLUDGE. INNOVATIVE MEANS OF SLUDGE DISPOSAL ARE REPORTED, INCLUDING CODISPOSAL--TREATING ONE WASTE WITH ANOTHER WASTE. SOFTENING SLUDGES HAVE BEEN USED EXPERIMENTALLY AS CONDITIONERS FOR FARM LAND AND FOR RECLAIMING STRIP-MINED LAND. THE LATTER APPLICATION SHOULD BE THE SUBJECT OF PILOT- AND PLANT-SCALE STUDIES TO DETERMINE THE LONG-TERM EFFECTS OF VARIOUS SLUDGES ON SPECIFIC TYPES OF SOIL.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N11

IRIS ACCESSION NUMBER: EW007335

PUBLICATION DATE: 78

TITLE: OPERATOR'S POCKET GUIDE TO ACTIVATED SLUDGE - PART I THE BASICS.

DESCRIPTOR: *ACTIVATED SLUDGE; *INSTRUCTIONAL MATERIALS; MEASUREMENT; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *SLUDGE; *TROUBLESHOOTING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 39P. PRICE: \$1.50

ABSTRACT: THIS BOOKLET IS A POCKET-SIZE GUIDE TO PROCESS OPERATIONS, CONTROL METHODS, MEASUREMENT, ANALYSIS, INTERPRETATION OF RESULTS AND TROUBLESHOOTING. VARIOUS TOPICS ARE COVERED INCLUDING MICROORGANISMS, BOD REMOVAL, SOLIDS, SOLIDS SEPARATION, SOLIDS REMOVAL, CLARIFIERS, WATER QUALITY, LOADING, AND PH.

AVAILABILITY: CRS GROUP ENGINEERS, INC., STRAAM DIVISION, P. O. BOX 02201, PORTLAND, OR 97202

IRIS ACCESSION NUMBER: EW007341

PUBLICATION DATE: 81

TITLE: COMPUTER SOFTWARE FOR DATA COMMUNICATIONS.

PERSONAL AUTHOR: SKEES, WILLIAM D.

DESCRIPTOR: *COMMUNICATIONS; COMPUTER APPLICATIONS;
*COMPUTERS; *DATA COMMUNICATIONS; DATA MANAGEMENT; HARDWARE;
*INSTRUCTIONAL MATERIALS; *POST SECONDARY EDUCATION;
*SOFTWARE; *SYSTEMS ANALYSIS; TECHNOLOGY

DESCRIPTIVE NOTE: 163P. PRICE: \$18.95

ABSTRACT: THIS BOOK PROVIDES A SYSTEMATIC ANALYSIS OF THE MAIN CONCEPTS AND FUNCTIONS OF DATA COMMUNICATIONS SOFTWARE. IT EXPLAINS AND COMPARES VARIOUS DATA COMMUNICATIONS SYSTEMS FROM THE POINT OF VIEW OF COMMUNICATION OBJECTIVES RATHER THAN CONCENTRATING ON ONE PARTICULAR APPLICATION OF THE CONCEPTS. CHAPTERS INCLUDE: DEFINING DATA COMMUNICATIONS SOFTWARE AND ITS IMPORTANCE; FAMILIAR KINDS OF DATA COMMUNICATIONS SOFTWARE; THE OBJECTIVES OF DATA COMMUNICATIONS SOFTWARE; MEETING THE OBJECTIVES - DATA COMMUNICATIONS PROTOCOLS; HARDWARE PROTOCOLS - THEIR FUNCTIONAL INTERPRETATION; SOFTWARE PROTOCOLS - THEIR FUNCTIONAL COMPOSITION; THE HARDWARE-SUPPORTING FUNCTIONS; THE SOFTWARE-SUPPORTING FUNCTIONS; ORGANIZATION OF THE SOFTWARE FUNCTIONS TO SUPPORT PARTICULAR APPLICATIONS; MIXING DATA AND CONTROL (META) INFORMATION; AND, METACOMMUNICATIONS - NETWORK CONTROL AND ERROR RECOVERY.

AVAILABILITY: LIFETIME LEARNING PUBLICATIONS, 10 DAVIS DRIVE, BELMONT, CA 94002

IRIS ACCESSION NUMBER: EW007342

PUBLICATION DATE: 81

TITLE: COMPUTER-BASED INSTRUCTION - A STATE-OF-THE-ART ASSESSMENT.

PERSONAL AUTHOR: O'NEIL, HAROLD F., JR.

DESCRIPTOR: COMPUTER APPLICATIONS; *COMPUTER ASSISTED INSTRUCTION; *COMPUTERS; *EDUCATIONAL RESEARCH; *EDUCATIONAL TECHNOLOGY; EVALUATION; *INSTRUCTION; MANAGEMENT; SOFTWARE; *STATE-OF-THE-ART REVIEWS; TECHNOLOGY

DESCRIPTIVE NOTE: 260P. PRICE: \$23.50

ABSTRACT: THE INTENT OF THIS BOOK IS TO PROVIDE AN INTELLECTUAL FRAMEWORK FOR RECENT AND FUTURE COMPUTER-BASED INSTRUCTION RESEARCH BY CONDUCTING STATE-OF-THE-ART ASSESSMENTS. CHAPTERS INCLUDE: INTRODUCTION AND OVERVIEW OF COMPUTER-BASED INSTRUCTION; COMPUTER-MANAGED INSTRUCTION: A CONTEXT FOR COMPUTER-BASED INSTRUCTION; HARDWARE-SOFTWARE; COURSEWARE; LEARNING STRATEGIES; EVALUATION; MANAGEMENT; AND, COMPUTER-BASED INSTRUCTION IN EUROPE AND JAPAN.

AVAILABILITY: ACADEMIC PRESS, INC., ORDER DEPARTMENT, 111 FIFTH AVENUE, NEW YORK, NY 10003

IRIS ACCESSION NUMBER: EW007353

TITLE: A COURSE ON OPERATIONAL CONSIDERATIONS IN WASTEWATER TREATMENT PLANT DESIGN - INSTRUCTOR MANUAL.

DESCRIPTOR: BIOLOGICAL TREATMENT; *DESIGN; *FACILITIES; *INSTRUCTIONAL MATERIALS; MAINTENANCE; MODIFICATIONS; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; SLUDGE; *TEACHING GUIDES; UPGRADING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 570P. PRICE: \$1.00 PER DOCUMENT PLUS \$.03 PER PAGE.

ABSTRACT: THE MAIN PURPOSES OF THIS MANUAL ARE TO EXAMINE 14 AREAS FOR UPGRADING THE DESIGN OF WASTEWATER PLANT FACILITIES, AND TO SERVE AS A SOURCE OF REFERENCE FOR ESTABLISHING CRITERIA FOR UPGRADING WASTEWATER TREATMENT PLANTS. THE MANUAL ALSO FURNISHES INFORMATION FOR MODIFYING PLANT DESIGN TO COMPENSATE FOR CURRENT ORGANIC AND HYDRAULIC OVERLOADS AND/OR TO MEET MORE STRINGENT FUTURE TREATMENT REQUIREMENTS. THIS MANUAL EMPHASIZES THE IMPORTANCE OF MODIFYING EXISTING PLANTS AND DESIGNING NEW PLANT FACILITIES TO ACCOMMODATE OPERATIONAL MAINTENANCE AND OTHER ROUTINE PLANT FUNCTIONS.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007355

PUBLICATION DATE: 81

TITLE: WATER RESOURCES PROTECTION TECHNOLOGY.

PERSONAL AUTHOR: TOURBIER, J. TOBY

DESCRIPTOR: COST EFFECTIVENESS; DESIGN; EROSION; GUIDES; *INSTRUCTIONAL MATERIALS; INFILTRATION; *LAND USE; LEGAL ASPECTS; *MAINTENANCE; *MANAGEMENT; *POLLUTION CONTROL; POST SECONDARY EDUCATION; RUNOFF; SEWAGE; *URBAN AREAS; *WATER RESOURCES

DESCRIPTIVE NOTE: 184P. PRICE: \$15.00-ULI MEMBERS, \$20.00 LIST PRICE.

ABSTRACT: THIS REPORT CONSISTS OF A DESCRIPTION OF MEASURES THAT CAN BE INTEGRATED INTO URBAN DEVELOPMENT TO PREVENT, REDUCE, OR AMELIORATE POTENTIAL PROBLEMS WHICH WOULD OTHERWISE ADVERSELY AFFECT WATER RESOURCES. THESE PROBLEMS CONSIST OF RUNOFF INCREASES, DECREASES IN INFILTRATION, AND A GREATER DEGREE OF EROSION AND SEDIMENTATION, FLOODING, RUNOFF POLLUTION, AND DISCHARGE OF SEWAGE EFFLUENT. MEASURES ARE PRESENTED IN GROUPS AND RELATED DIRECTLY TO SPECIFIC PROBLEMS. THE APPLICATION, ADVANTAGES AND DISADVANTAGES, DESIGN CRITERIA, OUTLINE SPECIFICATIONS, COST GUIDELINES, MAINTENANCE, AND LEGAL IMPLEMENTATION OF EACH MEASURE ARE INDIVIDUALLY COVERED.

AVAILABILITY: URBAN LAND INSTITUTE, 1090 VERMONT AVENUE, N.W., SUITE 300, WASHINGTON, DC 20005

IRIS ACCESSION NUMBER: EW007356

PUBLICATION DATE: 78

TITLE: RIGGING & INSTALLATION - SUPERVISOR'S MANUAL.
COURSE 3511.

PERSONAL AUTHOR: JANSEN, RALPH

DESCRIPTOR: EQUIPMENT; *EQUIPMENT INSTALLATION;
*INSTRUCTIONAL MATERIALS; MAINTENANCE; *POST SECONDARY
EDUCATION; *RIGGING; SAFETY; *TEACHING GUIDES; *TRAINING
PROGRAMS

DESCRIPTIVE NOTE: PRICE: \$13.50

ABSTRACT: THIS TRAINING PROGRAM PRESENTS MATERIAL ON
RIGGING TECHNIQUES AND EQUIPMENT INSTALLATION. CONTAINED IN
THIS NOTEBOOK ARE: SUPERVISOR'S UNIT GUIDE, UNIT TESTS,
ANSWER SHEETS, AUTOMATIC ANSWER KEY, PROGRESS CHARTS, UNIT
COMPLETION CERTIFICATES, AND REQUEST FOR COMPLETION
CERTIFICATES.

AVAILABILITY: TPC TRAINING SYSTEMS, 1301 SOUTH GROVE
AVENUE, BARRINGTON, IL 60010

IRIS ACCESSION NUMBER: EW007357

PUBLICATION DATE: 78

TITLE: CONTROL AND INSTRUMENTATION SYSTEMS - SUPERVISOR'S
MANUAL - THE COURSE MANAGERS HANDBOOK. COURSE 2005.

PERSONAL AUTHOR: JANSEN, RALPH

DESCRIPTOR: *CONTROL SYSTEMS; EQUIPMENT; *INSTRUCTIONAL
MATERIALS; *INSTRUMENTATION; *MEASUREMENT; *POST SECONDARY
EDUCATION; *PROCESS CONTROL; SAFETY; *TEACHING GUIDES;
*TRAINING PROGRAMS

DESCRIPTIVE NOTE: PRICE: \$13.50

ABSTRACT: THIS TRAINING PROGRAM PRESENTS MATERIAL ON
CONTROL AND INSTRUMENTATION SYSTEMS. INSTRUCTIONAL UNITS
INCLUDE: INTRODUCTION TO PROCESS CONTROL; FOUNDATIONS OF
MEASUREMENT INSTRUMENTATION; PRESSURE MEASUREMENT; FORCE,
WEIGHT, AND MOTION MEASUREMENT; FLOW MEASUREMENT; LEVEL
MEASUREMENT; TEMPERATURE MEASUREMENT; FINAL CONTROL
ELEMENTS; AND, SAFETY, CALIBRATION, AND TESTING PROCEDURES.
INCLUDED ARE: SUPERVISOR'S UNIT GUIDE, UNIT TESTS, ANSWER
SHEETS, AUTOMATIC ANSWER KEY, PROGRESS CHARTS, UNIT
COMPLETION CERTIFICATES, AND REQUEST FOR COMPLETION
CERTIFICATES.

AVAILABILITY: TPC TRAINING SYSTEMS, 1301 SOUTH GROVE
AVENUE, BARRINGTON, IL 60010

IRIS ACCESSION NUMBER: EW007358

PUBLICATION DATE: MAR 81

TITLE: WATER QUALITY & POLLUTANT SOURCE MONITORING: FIELD
AND LABORATORY PROCEDURES - TRAINING MANUAL.

DESCRIPTOR: BIOLOGICAL SCIENCES; CHEMISTRY; *FIELD STUDIES;
*LABORATORY PROCEDURES; *MEASUREMENT; POST SECONDARY
EDUCATION; *SAMPLING; SCIENCE EDUCATION; *WATER POLLUTION;
WATER RESOURCES; ANALYTICAL METHODS; BACTERIOLOGY;
*MONITORING; *WATER QUALITY

DESCRIPTIVE NOTE: 272P. PRICE: \$1.00 PER DOCUMENT PLUS
\$.03 PER PAGE.

ABSTRACT: THIS TRAINING MANUAL PRESENTS MATERIAL ON
TECHNIQUES AND INSTRUMENTATION USED TO DEVELOP DATA IN FIELD
MONITORING PROGRAMS AND RELATED LABORATORY OPERATIONS
CONCERNED WITH WATER QUALITY AND POLLUTION MONITORING.
TOPICS INCLUDE: COLLECTION AND HANDLING OF SAMPLES;
BACTERIOLOGICAL, BIOLOGICAL, AND CHEMICAL FIELD AND
LABORATORY METHODS; FIELD INSTRUMENTATION; AND FLOW
MEASUREMENTS. THE MANUAL IS DESIGNED FOR PERSONNEL ENGAGED
IN PROGRAMS CONCERNED WITH MONITORING THE QUALITY OF SURFACE
WATERS. CHAPTERS INCLUDE READING MATERIALS, LABORATORY
ACTIVITIES, AND REFERENCE MATERIALS.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, 1200
CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007359

PUBLICATION DATE: SEP 80

TITLE: BACTERIOLOGICAL METHODS IN WATER QUALITY CONTROL
PROGRAMS - INSTRUCTOR'S GUIDE.

DESCRIPTOR: BIOLOGICAL SCIENCES; DATA ANALYSIS;
*ENVIRONMENTAL STANDARDS; *LABORATORY PROCEDURES;
*MICROBIOLOGY; POST SECONDARY EDUCATION; *SCIENCE EDUCATION;
*WATER POLLUTION; WATER RESOURCES; ANALYTICAL METHODS;
*BACTERIOLOGY; *WATER QUALITY

DESCRIPTIVE NOTE: 194P. PRICE: \$1.00 PLUS \$.03 PER PAGE.

ABSTRACT: THIS INSTRUCTOR'S MANUAL PRESENTS MATERIAL ON
BASIC BACTERIOLOGICAL LABORATORY PROCEDURES AS REQUIRED BY
FEDERAL REGISTER WATER QUALITY GUIDELINES. COURSE TOPICS
INCLUDE: CHARACTERISTICS, OCCURRENCES, AND SIGNIFICANCE OF
BACTERIAL INDICATORS OF POLLUTION; BACTERIOLOGICAL WATER
QUALITY STANDARDS AND CRITERIA; COLLECTION AND HANDLING OF
SAMPLES; LABORATORY TEST PROCEDURES; AND DATA ANALYSIS. THE
GUIDE CONSISTS OF TWO MAJOR PARTS. PART I CONTAINS
INFORMATION REQUIRED FOR COURSE PLANNING AND MANAGEMENT.
PART II CONSISTS OF A SERIES OF WORKSHEETS WHICH PROVIDE
LEARNING OBJECTIVES AND A SUGGESTED INSTRUCTIONAL APPROACH
FOR EACH TOPIC INCLUDED IN THE TRAINING MANUAL.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, 1200
CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007360

PUBLICATION DATE: FEB 80

TITLE: BASIC ENVIRONMENTAL STATISTICS NOTEBOOK - TRAINING MANUAL.

DESCRIPTOR: APPLIED STATISTICS; *DATA ANALYSIS; DATA INTERPRETATION; *DECISION MAKING; *INSTRUCTIONAL MATERIALS; MATHEMATICS; *MATHEMATICS EDUCATION; *POST SECONDARY EDUCATION; SAMPLING; *STATISTICS; *TRAINING MANUALS; WORKBOOKS

DESCRIPTIVE NOTE: 121P. PRICE: \$1.00 PER DOCUMENT PLUS \$.03 PER PAGE.

ABSTRACT: THIS TRAINING MANUAL PRESENTS MATERIAL FOR A COURSE ON THE FOUNDATIONS, CONCEPTS, DEVELOPMENTS, AND APPLICATIONS OF STATISTICAL THEORY TO ENVIRONMENTAL SAMPLING PROGRAMS. THIS COURSE IS DESIGNED FOR PERSONNEL RESPONSIBLE FOR COLLECTION, ANALYSIS AND INTERPRETATION OF ENVIRONMENTAL DATA BUT WHO HAVE LITTLE OR NO TRAINING IN APPLIED STATISTICS.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007361

PUBLICATION DATE: JUL 81

TITLE: METHODS FOR THE DETERMINATION OF CHEMICAL CONTAMINANTS IN DRINKING WATER - INSTRUCTOR'S HANDBOOK.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; CHEMICAL ANALYSIS; *CONTAMINANTS; *DRINKING WATER; *FLUORIDES; *INSTRUCTIONAL MATERIALS; LABORATORY PROCEDURES; *METALS; *NITRATES; *ORGANIC COMPOUNDS; *POST SECONDARY EDUCATION; POTABLE WATER; REGULATIONS; SAFE DRINKING WATER ACT; SAMPLING; *TEACHING GUIDES; TESTING; *WATER QUALITY

DESCRIPTIVE NOTE: 180P. PRICE: \$1.00 PER DOCUMENT PLUS \$.03 PER PAGE.

ABSTRACT: THIS INSTRUCTOR'S GUIDE PROVIDES MATERIAL FOR A COURSE ON THE ANALYSIS OF POTABLE WATERS FOR CONTAMINANTS LISTED IN THE INTERIM PRIMARY DRINKING WATER REGULATIONS. THIS COURSE COVERS THE ANALYTICAL METHODOLOGY USED TO ANALYZE FOR METALS, ORGANICS, NITRATES, AND FLUORIDES. ADDITIONAL TOPICS COVERED INCLUDE SAMPLE HANDLING AND DISCUSSIONS ON LABORATORY CERTIFICATION AND THE SAFE DRINKING WATER ACT.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007362

PUBLICATION DATE: APR 80

TITLE: METHODS FOR THE DETERMINATION OF CHEMICAL CONTAMINANTS - TRAINING MANUAL.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; CHEMICAL ANALYSIS; *CONTAMINANTS; *DRINKING WATER; *FLUORIDES; *INSTRUCTIONAL MATERIALS; LABORATORY PROCEDURES; *METALS; *NITRATES; *ORGANIC COMPOUNDS; *POST SECONDARY EDUCATION; POTABLE WATER; REGULATIONS; SAFE DRINKING WATER ACT; SAMPLING; TESTING; *TRAINING MANUALS; *WATER QUALITY

DESCRIPTIVE NOTE: 449P. PRICE: \$1.00 PER DOCUMENT PLUS \$.03 PER PAGE.

ABSTRACT: THIS TRAINING MANUAL PRESENTS INFORMATION ON THE ANALYSIS OF POTABLE WATERS FOR CONTAMINANTS LISTED IN THE INTERIM PRIMARY DRINKING WATER REGULATIONS. THIS COURSE WILL COVER THE ANALYTICAL METHODOLOGY USED TO ANALYZE FOR METALS, ORGANICS, NITRATES, AND FLUORIDES. ADDITIONAL TOPICS COVERED INCLUDE SAMPLE HANDLING AND DISCUSSIONS ON LABORATORY CERTIFICATION AND THE SAFE DRINKING WATER ACT.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007363

PUBLICATION DATE: SEP 79

TITLE: ORIENTATION TO MUNICIPAL WASTEWATER TREATMENT - TRAINING MANUAL.

DESCRIPTOR: *FACILITIES; *MAINTENANCE; *POST SECONDARY EDUCATION; *TECHNICAL EDUCATION; WASTE DISPOSAL; *WATER POLLUTION; *WATER RESOURCES; OPERATIONS (WASTEWATER); *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 350P. PRICE: \$1.00 PER DOCUMENT PLUS \$.03 PER PAGE.

ABSTRACT: INTRODUCTORY LEVEL MATERIAL ON MUNICIPAL WASTEWATER TREATMENT FACILITIES AND PROCESSES IS PRESENTED. COURSE TOPICS INCLUDE SOURCES AND CHARACTERISTICS OF MUNICIPAL WASTEWATER; OBJECTIVES OF WASTEWATER TREATMENT; DESIGN, OPERATION, AND MAINTENANCE FACTORS; PERFORMANCE TESTING; PLANT STAFFING; AND LABORATORY CONSIDERATIONS. CHAPTER TOPICS INCLUDE PRETREATMENT, SEDIMENTATION AND FLOTATION, TRICKLING FILTERS, ACTIVATED SLUDGE, SLUDGE DIGESTION AND HANDLING, WASTE TREATMENT PONDS, DISINFECTION AND CHLORINATION, FLOW MEASUREMENTS, PLANT SAFETY AND GOOD HOUSEKEEPING, AND SAMPLING.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007364

PUBLICATION DATE: MAY 80

TITLE: PLANKTON AND PERIPHYTON ANALYSES - TRAINING MANUAL.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *BIOLOGICAL SCIENCES;
DATA ANALYSIS; EVALUATION; IDENTIFICATION; *INSTRUCTIONAL
MATERIALS; *LABORATORY PROCEDURES; MEASUREMENTS;
MICROBIOLOGY; *PERIPHYTON; *POST SECONDARY EDUCATION;
*PLANKTON; *WATER QUALITY

DESCRIPTIVE NOTE: 240P. PRICE: \$1.00 PER DOCUMENT PLUS
\$.03 PER PAGE.

ABSTRACT: THIS TRAINING MANUAL PRESENTS COURSE MATERIAL ON
THE EVALUATION OF SURFACE WATER BY MEANS OF DIRECT
OBSERVATION AND CHEMICAL AND INSTRUMENTAL MEASUREMENT OF
MICROORGANISMS. AFTER COMPLETING THE COURSE, THE STUDENT
WILL BE ABLE TO CARRY OUT BASIC LABORATORY PROCEDURES IN
IDENTIFICATION AND COUNTING; RECOGNIZE COMMON TYPES OF
ORGANISMS; AND CARRY COUNTING AND GROUP IDENTIFICATION TO
THE POINT OF OBTAINING RESULTS WHICH ARE QUALITATIVELY AND
QUANTITATIVELY ACCURATE.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, 1200
CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007365

PUBLICATION DATE: NOV 81

TITLE: CONTINUING EDUCATION. SURVEY SHOWS THAT SHORT
COURSES HELP SCIENTISTS TO KEEP UP IN THE ENVIRONMENTAL
FIELD.

PERSONAL AUTHOR: JOSEPHSON, JULIAN

DESCRIPTOR: *CONTINUING EDUCATION; ENGINEERING EDUCATION;
*ENVIRONMENTAL EDUCATION; *MINICOURSES; *NATIONAL SURVEYS;
*POST SECONDARY EDUCATION; *PROFESSIONAL DEVELOPMENT;
SCIENCE EDUCATION; TECHNICAL EDUCATION; *ENVIRONMENTAL
HEALTH

DESCRIPTIVE NOTE: 1264-1266P.

ABSTRACT: REPORTS THE FINDINGS OF A STUDY OF CONTINUING
EDUCATION IN THE ENVIRONMENTAL HEALTH FIELD INCLUDING TYPES
OF COURSES, PARTICIPANT PROFILES, TUITION CHARGES, IN-HOUSE
VERSUS OUTSIDE COURSES, AND PROBLEM AREAS. FOCUSES ON SHORT
COURSES AS AN INCREASINGLY IMPORTANT MEANS OF ENHANCING
PROFESSIONAL PERFORMANCE.

AVAILABILITY: ENVIRONMENTAL SCIENCE AND TECHNOLOGY; V15 N11

IRIS ACCESSION NUMBER: EW007375

PUBLICATION DATE: 78

TITLE: DISCIPLINED CREATIVITY FOR ENGINEERS.

PERSONAL AUTHOR: DAILEY, ROBERT L.

DESCRIPTOR: *CREATIVITY; *ENGINEERING; *ENGINEERING
EDUCATION; *HIGHER EDUCATION; *INSTRUCTIONAL MATERIALS;
*POST SECONDARY EDUCATION; *PROBLEM SOLVING

DESCRIPTIVE NOTE: 614P. PRICE: \$22.00

ABSTRACT: THIS BOOK DISCUSSES VARIOUS FACETS OF CREATIVE
PROBLEM-SOLVING IN ENGINEERING. IT IS INTENDED FOR USE AS A
TEXTBOOK FOR UPPER LEVEL ENGINEERING STUDENTS OF ALL
DISCIPLINES INTERESTED IN CREATIVITY IN ENGINEERING.
SECTIONS INCLUDE: AN ENGINEER'S PREVIEW OF DISCIPLINED
CREATIVITY; PERSONAL ASPECTS OF DISCIPLINED CREATIVITY; AND,
OTHER FACETS OF DISCIPLINED CREATIVITY.

AVAILABILITY: ANN ARBOR SCIENCE PUBLISHERS INC., 10 TOWER
OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW007379

PUBLICATION DATE: 81

TITLE: TRACE METALS IN THE ENVIRONMENT, VOLUME 6 COBALT.

PERSONAL AUTHOR: SMITH, IVAN C.; CARSON, BONNIE L.

DESCRIPTOR: AIR QUALITY; CHEMISTRY; *COBALT; *ENVIRONMENT;
*HAZARDOUS MATERIALS; *HEALTH HAZARDS; *HEAVY METALS; PUBLIC
HEALTH; TOXIC SUBSTANCES; *TRACE METALS; *WATER QUALITY

DESCRIPTIVE NOTE: 1,202P. PRICE: \$49.95

ABSTRACT: THIS BOOK EXAMINES THE HEAVY METAL COBALT IN
DETAIL. IT APPRAISES SOURCES OF ENVIRONMENTAL COBALT IN ALL
ITS CHEMICAL FORMS, AND EVALUATES THE POTENTIAL
ENVIRONMENTAL AND HUMAN HEALTH EFFECTS OF RESULTING
EXPOSURE. IDENTIFIED ARE THE NATURAL AND ANTHROPOGENIC
SOURCES OF COBALT IN THE ENVIRONMENT, THE CHEMICAL FORMS,
QUANTITIES AND MODES OF TRANSPORT OF COBALT MOVING THROUGH
THE ENVIRONMENT, HUMAN EXPOSURE TO COBALT THROUGH
INHALATION, DRINKING WATER, THE FOOD CHAIN, AND DERMAL
CONTACTS, AND THE HUMAN HEALTH HAZARDS EXPECTED FROM THESE
ENVIRONMENTAL EXPOSURES.

AVAILABILITY: ANN ARBOR SCIENCE PUBLISHERS INC., 10 TOWER
OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW007381

PUBLICATION DATE: 81

TITLE: FUELS FROM BIOMASS AND WASTES.

PERSONAL AUTHOR: KASS, DONALD L.; EMERT, GEORGE H.

DESCRIPTOR: *BIOMASS; CASE STUDIES; *CONFERENCE
PROCEEDINGS; ENERGY; *ENERGY PRODUCTION; ETHANOL; *FUELS;
GASIFICATION; HYDROLYSIS; LIQUEFACTION; *SYMPOSIA; WASTES;
*WASTE DISPOSAL

DESCRIPTIVE NOTE: 592P. PRICE: \$39.95

ABSTRACT: THIS BOOK CONTAINS INVITED PAPERS AND THOSE PRESENTED AT A SYMPOSIUM ON FUELS FROM BIOMASS, SPONSORED BY THE AMERICAN CHEMICAL SOCIETY. SECTIONS INCLUDE: BIOMASS PROCUREMENT AND PRODUCTION; BIOLOGICAL AND THERMAL GASIFICATION; HYDROLYSIS AND EXTRACTION; FERMENTATION ETHANOL; NATURAL AND THERMAL LIQUEFACTION; ENVIRONMENTAL EFFECTS; AND, SYSTEMS AND CASE STUDIES.

AVAILABILITY: ANN ARBOR SCIENCE PUBLISHERS INC., 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW007383

PUBLICATION DATE: 78

TITLE: ENVIRONMENTAL INDICES - THEORY AND PRACTICE.

PERSONAL AUTHOR: OTT, WAYNE R.

DESCRIPTOR: AIR POLLUTION; ANALYTICAL TECHNIQUES; *DATA ANALYSIS; DESIGN; *ENVIRONMENTAL INDICES; *ENVIRONMENT; *HIGHER EDUCATION; *INSTRUCTIONAL MATERIALS; *MATHEMATICAL APPLICATIONS; MONITORING; *POST SECONDARY EDUCATION; WATER POLLUTION

DESCRIPTIVE NOTE: 371P. PRICE: \$39.95

ABSTRACT: THIS TEXT SYSTEMATICALLY EXAMINES EXISTING ENVIRONMENTAL INDEX SYSTEMS, ALONG WITH PRINCIPLES FOR THEIR DESIGN, APPLICATION AND STRUCTURE. CHAPTERS INCLUDE: STRUCTURE OF ENVIRONMENTAL INDICES; AIR POLLUTION INDICES; WATER POLLUTION INDICES; AND, CONCEPTUAL APPROACHES. THIS BOOK IS INTENDED FOR USE AS A BASIC REFERENCE, A COLLEGE TEXT, AND AS A PRIMER FOR MEMBERS OF THE GENERAL PUBLIC, REGULATORY OFFICIALS, AND ENVIRONMENTAL PLANNERS, ENGINEERS, AND SCIENTISTS.

AVAILABILITY: ANN ARBOR SCIENCE PUBLISHERS, INC., 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW007384

PUBLICATION DATE: 80

TITLE: ENVIRONMENT AND HEALTH.

PERSONAL AUTHOR: TRIEFF, NORMAN M.

DESCRIPTOR: AIR POLLUTION; BIOTOXINS; *ECOLOGICAL FACTORS; ENERGY; *ENVIRONMENT; ENVIRONMENTAL LEGISLATION; HAZARDOUS SUBSTANCES; *HEALTH; HEAVY METALS; INDUSTRY; *INSTRUCTIONAL MATERIALS; LEGAL ASPECTS; NUTRITION; *POST SECONDARY EDUCATION; *PUBLIC HEALTH; TOXIC SUBSTANCES; WATER REUSE; *WATER RESOURCES

DESCRIPTIVE NOTE: 652P. PRICE: \$39.95

ABSTRACT: THIS BOOK EXAMINES THE STUDY OF ENVIRONMENTAL

HEALTH AND EMPHASIZES THE IMPACT OF THE ENVIRONMENT ON THE HEALTH OF MAN. DISCUSSED ARE POSITIVE ACTIONS THAT HUMANS CAN TAKE TO IMPROVE THE ENVIRONMENT. CHAPTERS INCLUDE: ENVIRONMENT AND HEALTH; WORLDWIDE ENVIRONMENTAL PROBLEMS; HEALTH AND THE GEOLOGY OF ENERGY; BIOACCUMULATION OF ANTHROPOGENIC TOXINS IN THE ECOSYSTEM; AIR POLLUTION AND HEALTH; WATER AND HEALTH; CONTEMPORARY OCCUPATIONAL HEALTH PROBLEMS; GENETIC RISK FROM ENVIRONMENTAL AGENTS; ERGONOMIC ASPECTS OF EXPOSURE TO THERMAL AND OTHER ENVIRONMENTAL STRESSES; EFFECTS OF INDUSTRIAL NOISE ON HEALTH; THE ROLE OF HEAVY METALS IN HUMAN HEALTH; FOOD, NUTRITION, AND HEALTH; ENVIRONMENTAL HEALTH PROBLEMS; FROM NUCLEAR ENERGY; MARINE BIOTOXINS; WATER REUSE -- HEALTH ASPECTS; LEGAL ASPECTS OF ENVIRONMENTAL PROTECTION; LEGISLATIVE ASPECTS OF ENVIRONMENTAL PROBLEMS; ENVIRONMENTAL DECISION-MAKING; THE UNEVENNESS OF COMMITMENT.

AVAILABILITY: ANN ARBOR SCIENCE PUBLISHERS INC., 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW007385

PUBLICATION DATE: 81

TITLE: CHEMISTRY IN WATER REUSE - VOLUME 2.

PERSONAL AUTHOR: COOPER, WILLIAM J.

DESCRIPTOR: ANALYTICAL TECHNIQUES; CARBON; *CHEMISTRY; *CONFERENCE PROCEEDINGS; *CONSERVATION; ORGANIC COMPOUNDS; *RECYCLING; *SYMPOSIA; TESTING; VIRUSES; *WASTEWATER TREATMENT; WATER QUALITY; WATER RESOURCES; *WATER REUSE; *WATER TREATMENT

DESCRIPTIVE NOTE: 647P. PRICE: \$39.95

ABSTRACT: THIS BOOK CONTAINS PAPERS PRESENTED AT A SYMPOSIUM ENTITLED, "CHEMISTRY AND CHEMICAL ANALYSIS OF WATER/WASTEWATER INTENDED FOR REUSE," SPONSORED BY THE AMERICAN CHEMICAL SOCIETY. THE FIVE SECTIONS INCLUDE: ANALYTICAL METHODS AND CHARACTERIZATION; CONCENTRATION OF ORGANICS FOR TOXICITY TESTING; CARBON: THEORY AND APPLICATION; TREATMENT TECHNIQUES; AND, VIRUSES AND PARASITES.

AVAILABILITY: ANN ARBOR SCIENCE PUBLISHERS INC., 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW007389

PUBLICATION DATE: 80

TITLE: BIOCHEMICAL INDICATORS OF SUBSURFACE POLLUTION.

PERSONAL AUTHOR: DERNER, OTIS C.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; BACTERIA; *BIOCHEMISTRY; ENZYMES; GROUNDWATER; *INDICATORS; *INSTRUCTIONAL MATERIALS; LITERATURE REVIEWS; MICROBIOLOGY; *MICROORGANISMS; *POLLUTION; *POST SECONDARY EDUCATION;

*STATE-OF-THE-ART REVIEWS; *SUBSURFACE POLLUTION

DESCRIPTIVE NOTE: 203P. PRICE: \$24.00

ABSTRACT: THIS TEXT EXAMINES IN DETAIL BIOCHEMICAL INDICATORS OF SUBSURFACE POLLUTION BY REVIEWING CURRENT STATE-OF-THE-ART ANALYTICAL TECHNIQUES. THE LIMITS OF ANALYSIS ARE DISCUSSED AND EXAMPLES OF THE NUMBER OF BACTERIA REQUIRED TO GIVE A DETECTABLE RESPONSE ARE PRESENTED. AN EXTENSIVE DISCUSSION OF THE DETERMINATIONS OF ENZYMES AND OF THE SIGNIFICANCE OF THE CONCENTRATIONS FOUND IN WATER AND SOIL CONSTITUTES THE BULK OF THE REVIEW.

AVAILABILITY: ANN ARBOR SCIENCE PUBLISHERS INC., 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW007390

PUBLICATION DATE: 77

TITLE: ENVIRONMENTAL ASSESSMENT & IMPACT STATEMENT HANDBOOK.

PERSONAL AUTHOR: CHEREMISINOFF, PAUL N.; MORRESI, ANGELO C.

DESCRIPTOR: AIR QUALITY; *ECOLOGICAL FACTORS; *ENVIRONMENTAL ASSESSMENT; *ENVIRONMENTAL IMPACT STATEMENTS; EVALUATION; *GUIDES; *HANDBOOKS; INDUSTRY; *METHODOLOGY; NOISE; OIL SPILLS; RADIOACTIVE WASTES; SOLID WASTES; WATER RESOURCES

DESCRIPTIVE NOTE: 438P. PRICE: \$37.50

ABSTRACT: THE PURPOSE OF THIS BOOK IS TO PROVIDE A GUIDE TO INFORMATION REQUIREMENTS FOR THOSE IN INDUSTRY INVOLVED IN EVALUATION AND/OR PREPARATION OF ENVIRONMENTAL ASSESSMENTS. IT IS INTENDED AS AN INTRODUCTORY HANDBOOK FOR THE EVALUATION PROCESS AND SUPPORTING RATIONALE REQUIRED. CHAPTERS INCLUDE: THE NATIONAL ENVIRONMENTAL POLICY ACT OF 1969; THE ENVIRONMENTAL IMPACT STATEMENT; ENVIRONMENTAL ASSESSMENT OF THE EIS; ENVIRONMENTAL METHODOLOGY; AIR QUALITY IMPACT; IMPACT ON WATER RESOURCES; SOLID WASTES - NOISE - ECONOMICS; OIL SPILL IMPACT; NUCLEAR POWER; RADIOACTIVE WASTE TREATMENT PRACTICES; PETROLEUM REFINERY ENVIRONMENTAL ASSESSMENT; AND, ENVIRONMENTAL ASSESSMENT OF THE RUBBER INDUSTRY.

AVAILABILITY: ANN ARBOR SCIENCE PUBLISHERS INC., 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW007391

PUBLICATION DATE: 79

TITLE: ENVIRONMENTAL IMPACT DATA BOOK.

PERSONAL AUTHOR: GOLDEN, JACK; AND OTHERS

DESCRIPTOR: AIR QUALITY; *DATA BASES; DATA COLLECTION; *ECOLOGICAL FACTORS; ENERGY; *ENVIRONMENTAL IMPACT

STATEMENTS; HAZARDOUS MATERIALS; *INDEXES; LEGAL ASPECTS; MODELING; PHYSICAL RESOURCES; *REFERENCE MATERIALS; WATER RESOURCES

DESCRIPTIVE NOTE: 864P. PRICE: \$49.95

ABSTRACT: THE INTENT OF THIS BOOK IS TO PROVIDE NEEDED SUMMARY DATA ON VARIOUS FACETS OF ENVIRONMENTAL IMPACT. THE BOOK SERVES AS A DATA REFERENCE, TO SUPPLEMENT OTHER SOURCES USED REGULARLY IN THE PREPARATION OF ENVIRONMENTAL IMPACT ASSESSMENTS AND STATEMENTS. CHAPTERS INCLUDE: TECHNIQUES FOR AIDING IN THE ASSESSMENT PROCESS; DATA BASES; MODELS; LEGAL FRAMEWORK; AIR QUALITY; WATER RESOURCES; NOISE; PHYSICAL RESOURCES; ECOSYSTEMS; TOXIC CHEMICALS; CULTURAL; ENERGY; AND, TRANSPORTATION.

AVAILABILITY: ANN ARBOR SCIENCE PUBLISHERS INC., 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW007392

PUBLICATION DATE: 80

TITLE: THE RECOVERY PROCESS IN DAMAGED ECOSYSTEMS.

PERSONAL AUTHOR: CAIRNS, JOHN, JR.

DESCRIPTOR: ECOLOGICAL FACTORS; *ECOSYSTEMS; *ECOLOGY; PLANT COMMUNITIES; *RECOVERY PROCESS; *REHABILITATION; *RESEARCH REPORTS; *SYMPOSIA

DESCRIPTIVE NOTE: 167P. PRICE: \$39.95

ABSTRACT: THIS BOOK CONTAINS PAPERS FROM A SYMPOSIUM ON THE RESTORATION OF DAMAGED ECOSYSTEMS. TITLES OF THE PAPERS ARE: "THE RELATIONSHIP BETWEEN SUCCESSION AND THE RECOVERY PROCESS IN ECOSYSTEMS"; "THE ECOLOGICAL FACTORS THAT PRODUCE PERTURBATION-DEPENDENT ECOSYSTEMS"; "TO REHABILITATE AND RESTORE GREAT LAKES ECOSYSTEMS"; "RECOVERY PATTERNS OF RESTORED MAJOR PLANT COMMUNITIES IN THE UNITED STATES: HIGH TO LOW ALTITUDE, DESERT TO MARINE"; "INFLUENCE OF ECOSYSTEM STRUCTURE AND PERTURBATION HISTORY ON RECOVERY PROCESSES"; "MULTIVARIATE QUANTIFICATION OF COMMUNITY RECOVERY"; AND, "THE OHI'A DIEBACK PHENOMENON IN THE HAWAIIAN RAINFOREST."

AVAILABILITY: ANN ARBOR SCIENCE PUBLISHERS INC., 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW007394

PUBLICATION DATE: 79

TITLE: PRINCIPLES OF NUCLEAR RADIATION DETECTION.

PERSONAL AUTHOR: EICHMOLZ, GEOFFREY C.; POSTON, JOHN W.

DESCRIPTOR: *DETECTION; ENGINEERING; EQUIPMENT; HEALTH EFFECTS; *HIGHER EDUCATION; *INSTRUCTIONAL MATERIALS; METHODS; *NUCLEAR PHYSICS; *POST SECONDARY EDUCATION; PUBLIC HEALTH; *RADIATION; SAFETY

DESCRIPTIVE NOTE: 380P. PRICE: \$14.95

ABSTRACT: THIS BOOK IS INTENDED FOR SENIOR UNDERGRADUATE AND BEGINNING GRADUATE STUDENTS IN PHYSICS, NUCLEAR ENGINEERING, HEALTH PHYSICS, AND NUCLEAR MEDICINE, AND FOR SPECIALIZED TRAINING COURSES FOR RADIATION PROTECTION PERSONNEL AND ENVIRONMENTAL SAFETY ENGINEERS. CHAPTERS INCLUDE: INTERACTION OF RADIATION WITH MATTER; COUNTING STATISTICS AND ERROR DETERMINATIONS; GAS-FILLED DETECTORS; SCINTILLATION DETECTION SYSTEMS; SEMICONDUCTOR DETECTORS; TRACK DEVICES; MISCELLANEOUS DETECTORS; NEUTRON DETECTION; CALIBRATION AND STANDARDS; AND, ELECTRONIC SYSTEMS.

AVAILABILITY: ANN ARBOR SCIENCE PUBLISHERS INC., 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW007395

PUBLICATION DATE: 80

TITLE: MOLECULAR BASIS OF ENVIRONMENTAL TOXICITY.

PERSONAL AUTHOR: BHATNAGAR, RAJENDRA S.

DESCRIPTOR: *BIOLOGY; CARCINOGENS; CELLS; *ENVIRONMENTAL TOXICITY; HAZARDOUS MATERIALS; *INSTRUCTIONAL MATERIALS; *MICROBIOLOGY; *MOLECULAR STUDIES; *POST SECONDARY EDUCATION; PUBLIC HEALTH; *SYMPOSIA; TOXICITY; *TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 589P. PRICE: \$39.95

ABSTRACT: THIS BOOK CONTAINS 25 PAPERS THAT EXPLAIN THE VARIOUS MOLECULAR MECHANISMS INVOLVED IN SEVERAL BROAD CATEGORIES OF ENCOUNTERS BETWEEN THE LIVING CELL AND A HOSTILE ENVIRONMENT. THE MAJOR SECTIONS OF THE BOOK ARE TITLED: FREE RADICAL MECHANISMS; MECHANISMS OF CELLULAR INJURY; MOLECULAR MECHANISMS IN ENVIRONMENTAL CARCINOGENESIS; METAL-TISSUE INTERACTION; ENVIRONMENTAL EFFECTS ON MACROMOLECULAR STRUCTURE; AND, PROBLEMS IN CORRELATING MOLECULAR MECHANISMS WITH ENVIRONMENTAL TOXICITY.

AVAILABILITY: ANN ARBOR SCIENCE PUBLISHERS INC., 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW007396

PUBLICATION DATE: 81

TITLE: MANAGEMENT OF TOXIC SUBSTANCES IN OUR ECOSYSTEMS.

PERSONAL AUTHOR: CORNABY, BARNEY W.

DESCRIPTOR: BIOASSAYS; *CONFERENCE PROCEEDINGS; *ENVIRONMENT; *ECOLOGY; *HAZARDOUS MATERIALS; MANAGEMENT; *POLLUTION CONTROL; *SYMPOSIA; TOXICITY; *TOXIC SUBSTANCES; TOXICOLOGY

DESCRIPTIVE NOTE: 186P. PRICE: \$22.50

ABSTRACT: THIS BOOK CONTAINS SIX PAPERS FROM A SYMPOSIUM ENTITLED, "TAMING OF THE MEDUSA: TOXIC SUBSTANCES IN OUR ECOSYSTEMS," HELD AT BATTELLE COLUMBUS LABORATORIES (OHIO), MARCH 7-8, 1980. THE PAPERS INCLUDED ARE: TOXIC SUBSTANCES; CLEAR SCIENCE, FOGGY POLITICS; ENVIRONMENTAL CARCINOGENS; THE HUMAN PERSPECTIVE; ECOSYSTEM THEORY AND THE UNEXPECTED; IMPLICATIONS FOR ENVIRONMENTAL TOXICOLOGY; PARADIGMS IN MULTIPLE TOXICITY; DEVELOPMENT OF NEW BIOASSAY PROTOCOLS; AND, TOWARD IMPROVED CONTROL OF TOXIC SUBSTANCES.

AVAILABILITY: ANN ARBOR SCIENCE PUBLISHERS INC., 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW007413

PUBLICATION DATE: 73

TITLE: WATER QUALITY CRITERIA, 1972.

DESCRIPTOR: AGRICULTURE; AQUATIC ECOLOGY; *ECOLOGY; *ENVIRONMENTAL CRITERIA; INDUSTRY; MARINE ORGANISMS; RECREATION; *STANDARDS; *WATER QUALITY; *WATER RESOURCES; WATER SUPPLY

DESCRIPTIVE NOTE: 594P.

ABSTRACT: VARIOUS ENVIRONMENTAL, SOCIAL, AND ECONOMIC FACTORS RELATING TO WATER QUALITY ARE EXAMINED IN THIS DETAILED REPORT. THESE PARAMETERS WERE INVESTIGATED TO PROVIDE BASELINE AND BACKGROUND INFORMATION FOR THE ESTABLISHMENT OF WATER QUALITY STANDARDS BY THE USEPA. SECTIONS OF THIS REPORT INCLUDE: RECREATION AND AESTHETICS; PUBLIC WATER SUPPLIES; FRESHWATER AQUATIC LIFE AND WILDLIFE; MARINE AQUATIC LIFE AND WILDLIFE; AGRICULTURAL USES OF WATER; AND, INDUSTRIAL WATER SUPPLIES.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON, DC 20402

IRIS ACCESSION NUMBER: EW007414

PUBLICATION DATE: 72

TITLE: OZONE IN WATER AND WASTEWATER TREATMENT.

PERSONAL AUTHOR: EVANS, FRANCIS L.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; CASE STUDIES; CHEMICAL REACTIONS; *DISINFECTION; ECONOMIC FACTORS; *INSTRUCTIONAL MATERIALS; *LITERATURE REVIEWS; *OZONE; *OZONE; OPERATIONS (WATER); OPERATIONS (WASTEWATER); TECHNOLOGICAL ADVANCEMENTS; *WASTEWATER TREATMENT; WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 185P. PRICE: \$22.50

ABSTRACT: THIS BOOK COVERS THE HISTORICAL APPLICATION OF OZONE, THE DIFFICULTIES ASSOCIATED WITH OZONE AS AN OXIDANT IN WASTEWATER TREATMENT, THEORETICAL ASPECTS OF OZONE CHEMISTRY, AND THE PRACTICAL ASPECTS OF OZONE GENERATION AND

APPLICATION. CHAPTERS INCLUDE: OZONE TECHNOLOGY -- CURRENT STATUS; ANALYTICAL METHODS FOR OZONE IN WATER AND WASTEWATER APPLICATIONS; ORGANIC GROUPINGS REACTIVE TOWARD OZONE; MECHANISMS IN AQUEOUS MEDIA; PILOT PLANT STUDIES OF TERTIARY WASTEWATER TREATMENT WITH OZONE; OZONE AS A WATER AND WASTEWATER DISINFECTANT; A LITERATURE REVIEW; OZONE GENERATION AND ITS RELATIONSHIP TO THE ECONOMICAL APPLICATION OF OZONE IN WASTEWATER TREATMENT; OZONE IN WATER DISINFECTION; AND, PRACTICAL ASPECTS OF WATER AND WASTEWATER TREATMENT BY OZONE.

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AUTHOR INDEX

AIKEN, ROBERT M.
EW 007 147

ALLEN, MARTIN J.
EW 006 736
EW 006 737

ALTMAN, J. W.
EW 001 386

ALY, OSMAN M.
EW 006 567

ANDERSON, E. L.
EW 006 908
EW 006 909

ANDERSON, JOHN
EW 007 160

ANDERSON, MARK C.
EW 006 921

ANDREAE, MEINRAT O.
EW 006 995

ANTHONY, RICHARD M.
EW 007 011

AUKER, DENNIS
EW 007 293
EW 007 299

BABB, PATRICIA
EW 007 164

BAILEY, ROBERT L.
EW 007 375

BAUMANN, DUANE D.
EW 004 116
EW 006 889

BEARD, JAMES D., II
EW 007 074

BEASLEY, R. SCOTT
EW 006 874

BENEDICT, JOHN T.
EW 003 968

BERRY, BRIAN J. L.
EW 006 167

BHATNAGAR, RAJENDRA S.
EW 007 395

BIEHL, TED G.
EW 006 904

BIERIC, H. W.
EW 006 903

BLACKALL, PETER J.
EW 006 583

BLANCHARD, KENNETH H.
EW 007 079

BOHAC, CHARLES E.
EW 006 722

BOORNAZIAN, LINDA YOUNG
EW 006 593

BORDNER, ROBERT H.
EW 006 735

BORK, ALFRED
EW 007 057

BOUSFIELD, KENNETH H.
EW 007 206

BOWERS, EUGENE
EW 007 074

BOYLE, WILLIAM C.
EW 006 710

BRAIDS, OLIN C.
EW 006 723

BREIMHURST, LAWRENCE H.
EW 007 011

BRODEUR, TIMOTHY P.
EW 007 075

BROWER, C. R.
EW 006 719

BROWN, CHARLES
EW 007 051

BROWN, ROBENA J.
EW 006 653

BROWNE, F. X.
EW 006 720

BUKKEMA, A. L., JR.
EW 006 730

BUSKIRK, E. DRANNON, JR.
EW 007 283
EW 007 284
EW 007 285
EW 007 290
EW 007 292
EW 007 293

CAIRNS, JOHN, JR.
EW 007 392

CAIRNS, THOMAS
EW 007 201

CANTRELL, RICHARD D.
EW 004 168

CARSON, BONNIE L.
EW 007 379

CHATTERJEE, SAMAR
EW 006 713

CHEREMISINOFF, PAUL N.
EW 006 565
EW 007 390

CHESTERS, GORDON
EW 007 045

CHOW, WINSTON
EW 006 726

CHRISTENSEN, RALPH G.
EW 006 888

CLARK, ROBERT M.
EW 006 987

CLARKE, DERRICK A.
EW 006 990

COLE, CHARLES A.
EW 007 285
EW 007 286
EW 007 287
EW 007 288
EW 007 295

CONNELL, CASSIE C.
EW 007 163

COON, HERBERT L.
EW 007 183

COOPER, P. F.
EW 006 756

COOPER, WILLIAM J.
EW 006 566
EW 007 385

CORNABY, BARNEY W.
EW 007 396

CORSSMIT, C. (KEES) W.
EW 007 181

CRAUN, GUNTHER F.
EW 006 739

CRAVENS, J. B.
EW 006 725

CROSSLEY, EUGENE I.
EW 007 077

DAPPY, WILLIAM P.
EW 006 986

DAVENPORT, R. J.
EW 007 210

DAVIS, RICHARD W.
EW 007 148

DEPINTO, JOSEPH V.
EW 006 729

DERMER, OTIS C.
EW 007 389

DOAN, ROLAND, JR.
EW 007 050

DOBS, DAVID M.
EW 006 339

DORRLER, STEPHEN
EW 006 602

DRESSMAN, RONALD C.
EW 004 142

DRURY, DOUGLAS D.
EW 006 711

DWORKIN, DANIEL
EW 004 116

EGELAND, DUANE, R.
EW 006 904

EICHHOLZ, GEOFFREY G.
EW 007 394

EISENREICH, STEVEN J.
EW 006 571

ELLIOTT, WILLIAM M.
EW 006 985

EMERT, GEORGE H.
EW 007 381

EMRICH, GROVER H.
EW 007 019

EVANS, FRANCIS L.
EW 007 414

FANNIN, KERBY F.
EW 006 707

FARMER, HAIG
EW 006 220

FAUST, SAMUEL D.
EW 006 567

FILBERT, JOHN W.
EW 006 219

FITZGERALD, STEVEN D.
EW 006 989

FOLAND, DONALD L.
EW 007 207

FRANZ, D. D.
EW 006 875

FULTON, GEORGE P.
EW 006 214

GARRETT, JACK T., JR.
EW 007 078

CAST, ILENE
EW 006 323

GEARHART, ROBERT A.
EW 003 967

CELDREICH, EDWIN E.
EW 004 144
EW 006 734

GEORGE, DENNIS B.
EW 006 706

GIBBS, CHARLES V.
EW 006 215

GLATZ, BONITA A.
EW 004 143

GLAZER, RICHARD B.
EW 002 908
EW 002 963

COFMAN, EMANUEL
EW 006 866

GOLDEN, JACK
EW 007 391

CORE, PETER H.
EW 004 118

GOULD, J. P.
EW 006 712

COVE, GEORGE W.
EW 006 718

GRANT, FRANK A.
EW 006 903

GREENBERG, ARNOLD E.
EW 006 422

CRUEBEL, JEROLD
EW 007 158

HAIMES, ANDREW S.
EW 007 050

HALL, LENWOOD W., JR.
EW 006 941

HANSON, HUGH F.
EW 006 222

HARTMAN, JANET
EW 007 054

HATRY, HARRY P.
EW 006 449

HAUSLER, WILLIAM J., JR.
EW 006 422

HAVEN, ROBERT C.
EW 007 309

HAWLEY, RANDY P.
EW 006 983

HECKMEN, DALE M.
EW 007 152

HERSCH, PAUL
EW 006 212

HERSEY, PAUL
EW 007 079

HEUER, THOMAS
EW 006 713

HOLDEN, JANET A.
EW 006 584

HOLLEY, EDWARD R.
EW 006 989

HOPP, WALLACE J.
EW 006 986

HORWITZ, WILLIAM
EW 006 764

HRUDEY, STEVE E.
EW 006 714

HUCKABEE, ADRIAN J.
EW 007 078

HUFF, LINDA L.
EW 006 585
EW 006 586

IDELOVITCH, EMANUEL
EW 006 907

JACKSON, RAY A.
EW 004 138

JANSEN, RALPH
EW 007 356
EW 007 357

JANSEN, RALPH F.
EW 007 090
EW 007 091
EW 007 092
EW 007 093
EW 007 094
EW 007 095
EW 007 097
EW 007 098
EW 007 099
EW 007 100
EW 007 101

JEPSEN, CHRISTOPHER P.
EW 006 918

JOSEPHSON, JULIAN
EW 006 896
EW 007 365

KALBERMATTEN, JOHN M.
EW 006 618

KEATING, TERRENCE J.
EW 006 873

KHAN, KHALIQUE A.
EW 007 016

KING, RICHARD W.
EW 007 077

KLASS, DONALD L.
EW 007 381

KLEMETSON, S. L.
EW 006 704

KOWAL, N. E.
EW 006 717

KREWSKI, DANIEL
EW 007 051

KRISHNAMOORTHY, K. P.
EW 006 910

KRONER, AUDREY
EW 007 281
EW 007 282

KRUP, M.
EW 006 708

LANZA, C. R.
EW 006 733

LAUTSCH, JOHN C.
EW 007 052

LAVERTY, GORDON L.
EW 004 139

LEE, MICHAEL C.
EW 006 922

LEHR, JAY H.
EW 006 213
EW 006 958

LEVIN, ALAN
EW 006 222

LEWIS, R.
EW 007 063

LIEBRENZ, MARILYN L., ED.
EW 003 375

LIEU, S. M.
EW 006 875

LIU, KUANG-TSAN
EW 007 018

LONG, DAVID A.
EW 007 297

LONG, HARVEY S.
EW 007 153

LUKAS, TERRENCE
EW 007 159

MA, LAURENCE J. C.
EW 007 044

MACIOROWSKI, A. F.
EW 006 727

MANDEL, S.
EW 006 940

MANCANI, FILIPPO
EW 007 204

MANNING, ALAN W.
EW 006 339

MARKS, BILL
EW 006 592

MARSH, DEBORAH
EW 007 012

MATTHEWS, JOHN E.
EW 006 890

MCCLURE, CARMA L.
EW 007 083

MCCOY, THOMAS G.
EW 006 224

MCDAVID, EILEEN
EW 005 885

MEDINE, ALLEN
EW 006 721

MEIKLE, K. H.
EW 006 581

MELEAR, E. L.
EW 006 703

MICHAIL, MEDY
EW 006 907

MILLER, HOPE
EW 006 892

MILLER, STANTON
EW 006 419
EW 006 420

MILLETTE, J. R.
EW 006 216

MITCHELL, MAURICE
EW 007 053

MOEHLMAN, DAVID
EW 006 906

MOFFA, PETER E.
EW 006 716

MOCHISSI, A. A.
EW 006 374

MOORE, BARBARA E.
EW 007 014

MORRESI, ANGELO C.
EW 007 390

MORRIS, SHAREE
EW 006 809

MURPHY, CORNELIUS B., JR.
EW 006 728

MURPHY, DENNIS J.
EW 006 223

MYROLD, CLARENCE W.
EW 006 217

NELSON, PETER O.
EW 007 017

NESBITT, JOHN B.
EW 007 287

NEUMAN, WILLIAM E.
EW 007 076

NOBLE, ALLEN G.
EW 007 044

NORMAN, EDWARD C.
EW 007 056

NOVOTNY, VLADIMIR
EW 007 045

O'BRIEN, BARBARA
EW 006 902

O'NEIL, HAROLD F., JR.
EW 007 342

O'NEILL, LARRY
EW 006 591

OGUSHWITZ, HOWARD L.
EW 006 631

ONISHI, YASUO
EW 006 868

OTIS, RICHARD J.
EW 006 710

OTT, WAYNE R.
EW 007 383

PAHREN, H. R.
EW 006 717

PALMER, C. NERVIN
EW 006 137

PANICKER, P. V. R. C.
EW 006 910

PENBERTHY, RICHARD
EW 006 384

PERLIS, HARLAN J.
EW 006 565

PERRY, PATRICK F.
EW 006 867

PFAFF, JACK
EW 006 954

PILZER, JOHN E.
EW 007 308

PIPES, WESLEY O.
EW 006 741

PISHADAZAR, H.
EW 006 374

PORCELLA, DONALD B.
EW 006 721

POSTON, JOHN W.
EW 007 394

PRAKASAM, T. B. S.
EW 006 708

PRENDIVILLE, PAUL W.
EW 007 205

PRISK, DENNIS P.
EW 007 156

QUICLEY, M. A.
EW 006 731

RAGAN, JAMES F., JR.
EW 003 779

RAMKRISHNADAS, R.
EW 006 719

RANKTKE, STEPHEN J.
EW 006 918

RAYES, A. G.
EW 006 988

REASONER, DONALD J.
EW 006 738

REED, GREGORY D.
EW 007 013

REISH, DONALD J.
EW 006 724

RENEAU, FRED
EW 007 086

REYNOLDS, JAMES H.
EW 006 715

RISLEY, CLIFFORD, JR.
EW 006 888

RODEH, MICHAEL
EW 006 866

ROGERS, C. L.
EW 006 704

ROY, D
EW 006 740

RUSSOMANNO, ROCCO
EW 006 955

SAAR, ROBERT A.
EW 006 723

SAKOVICH, VLADIMIR
EW 007 155

SCARRAT, D. J.
EW 006 582

SCHAAF, DICK VANDER
EW 006 221

SCHMIDT, STEVEN D.
EW 006 266

SCHROEDER, RAYMOND E.
EW 007 055

SCHUPACK, MORRIS
EW 006 884

SCHWOYER, WILLIAM L. K.
EW 006 975

SCOTT, JOHN S.
EW 006 915

SEIDEL, GEORGE R.
EW 007 266

SEIDLER, RAMON J.
EW 007 208

SEILER, E. L.
EW 001 386

SELL, THOMAS C.
EW 006 601

SHERARD, JOSEPH H.
EW 006 705

SHIFTAN, Z. L.
EW 006 940

SHOOK, GARY A.
EW 004 169

SIEGMUND, EMIL G.
EW 007 201

SIMKO, ROBERT A.
EW 007 296

SIMMONDS, LESLIE E.
EW 004 139

SINGER, PHILIP C
EW 006 916

SKEES, WILLIAM D.
EW 007 341

SMITH, EDGAR D.
EW 006 702

SMITH, IVAN C.
EW 007 379

SMITH, PAUL C. EW 006 918	VESILIND, P. AARNE EW 006 709
SODD, ANTHONY N. EW 006 676	WALLER, W. T. EW 006 733
SOWBY, STEPHEN E. EW 007 307	WARNER, DON L. EW 006 958
SPEETER, GREG EW 006 872	WEBB, KENNETH EW 006 449
SPEHAR, M. L. EW 006 732	WEBER, WALTER J., JR. EW 006 919 EW 006 920 EW 007 018
STEVENS, ALAN A. EW 007 209	WEST, A. W. EW 006 964
STEVIE, RICHARD C. EW 006 987	WEST, ALFRED W. EW 006 973
STOLTZFUS, LORNA EW 007 291	WHITNEY, VALERIE EW 006 599
STOTT, P. F. EW 006 218	WILLIAMS, ROBERT B. EW 006 220
SUNDIN, BJALMAR S. EW 006 885	WILLIAMSON, KENNETH J. EW 007 017
SVENSON, RAYNOLD A. EW 007 146	WISE, LOIS RECASCINO EW 006 885
TABAK, HENRY H. EW 007 015	WOLFF, ERIC W. EW 007 203
TAYLOR, RAYMOND H. EW 004 144	WOOD, DON J. EW 006 988
THATCHER, L. L. EW 003 969	WOODARD, F. E. EW 007 202
THOMPSON, GARY S. EW 006 224	YOHE, THOMAS L. EW 006 917
TOURBIER, J. TOBY EW 007 355	ZOLTEK, JOHN EW 006 703
TRIEFF, NORMAN M. EW 007 384	
TRUSSELL, ALBERT R. EW 004 140	
VAN VLIET, BENJAMIN M. EW 006 919 EW 006 920	
VANDER HAECHEN, PETER EW 007 157	
VARMA, M. M. EW 004 141	

SUBJECT INDEX

234

*ABSTRACTS	(4)	EW006323	EW006631	EW007021	EW007034			
ABSTRACTS	(1)	EW006329						
*ACCIDENT PREVENTION	(1)	EW006902						
ACCIDENT PREVENTION	(1)	EW007086						
ACCUMULATORS	(1)	EW007229						
*ACIDITY	(1)	EW006567						
*ACID MINE DRAINAGE	(1)	EW006653						
*ACID RAIN	(1)	EW006135						
ACID RAIN	(1)	EW006702						
*ACIDS	(1)	EW006977						
*ACOUSTICAL ENVIRONMENT	(1)	EW007104						
*ACOUSTICS	(1)	EW007103						
ACOUSTICS	(1)	EW007104						
*ACTIVATED CARBON	(6)	EW006918	EW006919	EW006920	EW006921	EW006922	EW007016	
ACTIVATED CARBON	(1)	EW006420						
*ACTIVATED SLUDGE	(12)	EW006278	EW006339	EW006705	EW006905	EW006922	EW006963	EW006964
	EW006973	EW006982	EW007017	EW007219	EW007335			
ACTIVATED SLUDGE	(4)	EW006711	EW006741	EW007169	EW007170			
*ACTIVISM	(1)	EW006872						
*ACTUATORS	(1)	EW007100						
*ADMINISTRATION	(2)	EW006813	EW006848					
*ADMINISTRATIVE GUIDES	(1)	EW006313						
ADMINISTRATIVE PROBLEMS	(1)	EW003779						
ADMINISTRATOR GUIDES	(1)	EW003967						
ADMINISTRATOR ROLE	(2)	EW003779	EW007155					
ADMINISTRATORS	(1)	EW007146						
ADOLESCENTS	(1)	EW007056						
*ADSORBERS	(1)	EW007018						
*ADSORPTION	(5)	EW006919	EW006920	EW006921	EW006922	EW007018		
ADSORPTION	(2)	EW006703	EW006918					
*ADULT DEVELOPMENT	(1)	EW007056						
*ADULT EDUCATION	(14)	EW007283	EW007284	EW007285	EW007286	EW007287	EW007288	EW007289
	EW007290	EW007291	EW007292	EW007293	EW007295	EW007298	EW007299	

ADULT EDUCATION	(4)	EW007146	EW007294	EW007296	EW007297			
*ADULT LEARNING	(1)	EW007056						
ADULTS	(1)	EW007056						
*ADVISORY COMMITTEES	(2)	EW007293	EW007294					
ADVISORY COMMITTEES	(1)	EW007152						
*AERATION	(2)	EW007037	EW007038					
AERATION	(1)	EW007036						
AERATORS	(1)	EW006905						
*AERIAL PHOTOGRAPHY	(1)	EW007035						
AERIAL PHOTOGRAPHY	(1)	EW006873						
*AESTHETICS	(1)	EW007309						
*AGENCIES	(1)	EW006599						
*AGRICULTURAL SAFETY	(1)	EW007086						
*AGRICULTURAL WASTES	(2)	EW006880	EW007038					
AGRICULTURAL WASTES	(3)	EW006714	EW006720	EW007037				
*AGRICULTURE	(3)	EW006584	EW006880	EW007211				
AGRICULTURE	(4)	EW006566	EW007044	EW007292	EW007413			
*AIR FLOW	(2)	EW007116	EW007125					
*AIR POLLUTION	(9)	EW007105	EW007106	EW007108	EW007109	EW007110	EW007111	EW007123
	EW007126	EW007222						
AIR POLLUTION	(6)	EW006329	EW007125	EW007171	EW007184	EW007383	EW007384	
*AIR POLLUTION CONTROL	(4)	EW006054	EW006565	EW006571	EW006651			
*AIR QUALITY	(1)	EW006167						
AIR QUALITY	(5)	EW006054	EW007043	EW007379	EW007390	EW007391		
*ALGAE	(1)	EW006137						
ALGAE	(1)	EW007220						
*ALGORITHMS	(2)	EW006866	EW006988					
*ALLIED HEALTH OCCUPATIONS	(15)	EW007102	EW007103	EW007104	EW007106	EW007107	EW007108	EW007113
	EW007114	EW007117	EW007122	EW007123	EW007124	EW007125	EW007126	EW007127
ALLIED HEALTH OCCUPATIONS	(10)	EW007105	EW007109	EW007110	EW007111	EW007115	EW007116	EW007118
	EW007119	EW007120	EW007121					
*ALTERNATE TECHNOLOGIES	(1)	EW007211						
*ALTERNATIVE TECHNOLOGY	(2)	EW006710	EW006943					
*AMMONIA	(1)	EW006907						

AMMONIA	(1)	EW007012							
*ANAEROBIC PROCESSES	(1)	EW007016							
*ANAEROBIC TREATMENT	(1)	EW006707							
ANAEROBIC TREATMENT	(1)	EW006704							
*ANALYTICAL CHEMISTRY	(2)	EW006565	EW006764						
ANALYTICAL CHEMISTRY	(1)	EW007168							
ANALYTICAL METHODS	(5)	EW007168	EW007169	EW007170	EW007358	EW007359			
*ANALYTICAL TECHNIQUES	(50)	EW006135	EW006565	EW006566	EW006567	EW006653	EW006702	EW006720	
		EW006727	EW006729	EW006730	EW006731	EW006733	EW006735	EW006738	EW006764
		EW006868	EW006873	EW006874	EW006892	EW006896	EW006916	EW006940	EW006946
		EW006954	EW006955	EW006966	EW006990	EW006995	EW007026	EW007031	EW007076
		EW007078	EW007166	EW007167	EW007172	EW007182	EW007184	EW007201	EW007203
		EW007204	EW007208	EW007209	EW007210	EW007217	EW007266	EW007361	EW007362
		EW007364	EW007389	EW007414					
ANALYTICAL TECHNIQUES	(8)	EW006329	EW006712	EW006885	EW006889	EW006917	EW006941	EW007383	
		EW007385							
ANIMALS	(2)	EW006857	EW006858						
*ANNOTATED BIBLIOGRAPHIES	(5)	EW006631	EW006651	EW006653	EW007179	EW007180			
*ANTIMONY	(1)	EW006995							
APPLIED STATISTICS	(1)	EW007360							
*AQUACULTURE	(1)	EW006891							
*AQUATIC BIOLOGY	(1)	EW006726							
AQUATIC ECOLOGY	(1)	EW007413							
*AQUATIC ENVIRONMENTS	(8)	EW006582	EW006855	EW006856	EW006857	EW006858	EW007033	EW007034	
		EW007036							
*AQUATIC SYSTEMS	(1)	EW006891							
*AQUIFERS	(1)	EW006736							
AQUIFERS	(3)	EW006723	EW006940	EW007041					
ARID REGIONS	(1)	EW007307							
*ARITHMETIC	(1)	EW007225							
*ASBESTOS	(1)	EW006216							
*ASBESTOS-CEMENT PIPES	(1)	EW006216							
ATOMIC ABSORPTION SPECTROMETRY	(1)	EW006995							
ATOMIC SPECTRA	(1)	EW007182							
*ATP	(1)	EW007017							

*AUDIOVISUAL AIDS	(8)	EW000153	EW007029	EW007030	EW007031	EW007171	EW007172	EW007182
	EW007227							
AUDIOVISUAL AIDS	(3)	EW006983	EW007153	EW007157				
AUDIOVISUAL INSTRUCTION	(2)	EW007157	EW007158					
*AUDIOVISUAL MATERIALS	(1)	EW006974						
*AUDITS	(1)	EW006224						
*AUTOINSTRUCTIONAL AIDS	(1)	EW007157						
AUTOINSTRUCTIONAL AIDS	(3)	EW007052	EW007057	EW007146				
*AUTOINSTRUCTIONAL PROGRAMS	(11)	EW007090	EW007091	EW007092	EW007093	EW007094	EW007095	EW007097
	EW007098	EW007099	EW007100	EW007101				
AUTOMATIC CONTROL	(1)	EW006339						
*AUTOMATION	(1)	EW007013						
AUTOMATION	(1)	EW007162						
*BACTERIA	(2)	EW004144	EW006738					
BACTERIA	(4)	EW006585	EW006708	EW007014	EW007389			
*BACTERIOLOGY	(5)	EW006738	EW006968	EW007172	EW007208	EW007359		
BACTERIOLOGY	(1)	EW007358						
*BALANCES	(1)	EW007120						
BALTIMORE	(1)	EW007196						
*BASES	(1)	EW006977						
*BEACHES	(1)	EW006581						
*BEHAVIORAL OBJECTIVES	(1)	EW003967						
BEHAVIORAL OBJECTIVES	(2)	EW007087	EW007088					
*BEHAVIORAL STUDIES	(1)	EW007079						
*BIBLIOGRAPHIES	(27)	EW006329	EW006855	EW006856	EW006857	EW006858	EW006859	EW006864
	EW006880	EW006881	EW006882	EW006893	EW006894	EW006951	EW006952	EW006953
	EW007021	EW007033	EW007035	EW007036	EW007037	EW007038	EW007039	EW007040
	EW007041	EW007042	EW007089	EW007184				
BIBLIOGRAPHIES	(3)	EW006860	EW007179	EW007180				
BIFOULING	(1)	EW006704						
*BIOASSAYS	(1)	EW007015						
BIOASSAYS	(2)	EW007051	EW007396					
*BIOASSAY TESTS	(1)	EW006727						
*BIOCHEMICAL OXYGEN DEMAND	(1)	EW006978						
BIOCHEMICAL OXYGEN DEMAND	(1)	EW006966						

*BIOCHEMISTRY	(1)	EW007389							
*BIODEGRADABILITY	(1)	EW007015							
*BIODEGRADATION	(3)	EW006707	EW006756	EW006923					
*BIOLOGICAL EFFECTS	(1)	EW006135							
*BIOLOGICAL FILTERS	(1)	EW006704							
*BIOLOGICAL FLUIDIZED BEDS	(1)	EW006756							
*BIOLOGICAL INDICATORS	(1)	EW006727							
BIOLOGICAL INFLUENCES	(1)	EW006704							
*BIOLOGICAL SCIENCES	(1)	EW007364							
BIOLOGICAL SCIENCES	(3)	EW007170	EW007358	EW007359					
*BIOLOGICAL TREATMENT	(4)	EW006585	EW006704	EW006706	EW007012				
BIOLOGICAL TREATMENT	(5)	EW006419	EW006566	EW006881	EW007037	EW007353			
*BIOLOGY	(1)	EW007395							
BIOLOGY	(10)	EW003818	EW006718	EW006727	EW006731	EW006855	EW006856	EW006857	
		EW006858	EW006860	EW007124					
*BIOMASS	(1)	EW007381							
*BIOMEDICAL EQUIPMENT	(1)	EW007162							
BIOTOXINS	(1)	EW007384							
*BOOKS	(1)	EW007153							
*BORON	(1)	EW006909							
*BUREAU OF RECLAMATION	(1)	EW007178							
BUSINESS	(1)	EW007211							
*BUSINESS ADMINISTRATION	(1)	EW003968							
*CALIBRATION	(1)	EW007101							
*CALIFORNIA	(2)	EW006905	EW007077						
CALIFORNIA	(1)	EW007160							
*CANADA	(3)	EW007223	EW007225	EW007235					
*CANCER	(1)	EW007051							
CARBON	(2)	EW006917	EW007385						
CARBON ADSORPTION	(1)	EW006965							
*CARBON FILTERS	(1)	EW007016							
*CARCINOGENS	(2)	EW004143	EW006216						
CARCINOGENS	(1)	EW007395							

*CASE STUDIES	(21) EW006905 EW007173	EW006054 EW006906 EW007205	EW006216 EW006907 EW007206	EW006323 EW006910 EW007207	EW006715 EW006916 EW007307	EW006891 EW006917 EW007308	EW006903 EW006985	EW006904 EW007050
CASE STUDIES	(8) EW007414	EW006868	EW006888	EW006921	EW007019	EW007083	EW007278	EW007381
CELLS	(1)	EW007395						
*CERTIFICATION	(1)	EW006845						
*CHAINS	(1)	EW007090						
*CHECKLISTS	(1)	EW006884						
*CHEMICAL ANALYSIS	(15) EW006892	EW003969 EW006916	EW004140 EW007119	EW004141 EW007166	EW006566 EW007201	EW006567 EW007203	EW006571 EW007281	EW006702 EW007282
CHEMICAL ANALYSIS	(8) EW007362	EW006857	EW006859	EW006917	EW006918	EW007118	EW007204	EW007361
*CHEMICAL EQUILIBRIUM	(1)	EW006567						
*CHEMICAL INDUSTRY	(1)	EW006881						
CHEMICAL OXYGEN DEMAND	(1)	EW007016						
CHEMICAL PROPERTIES	(1)	EW006702						
*CHEMICAL REACTIONS	(3)	EW006567	EW006728	EW007266				
CHEMICAL REACTIONS	(1)	EW007414						
*CHEMICALS	(3)	EW006739	EW006881	EW006894				
CHEMICALS	(4)	EW006374	EW007179	EW007180	EW007183			
*CHEMICAL TREATMENT	(2)	EW006703	EW006918					
CHEMICAL TREATMENT	(1)	EW006419						
*CHEMICAL WASTES	(1)	EW006591						
*CHEMISTRY	(9) EW007266	EW006566 EW007385	EW006764	EW006966	EW006975	EW006978	EW006995	EW007168
CHEMISTRY	(12) EW007026	EW002963 EW007201	EW003818 EW007203	EW006567 EW007358	EW006571 EW007379	EW006728	EW006941	EW006945
*CHINA	(1)	EW007044						
*CHLORIDES	(1)	EW006977						
*CHLORINATION	(4)	EW006584	EW006941	EW006962	EW007050			
CHLORINATION	(5)	EW006137	EW006585	EW006712	EW006737	EW006918		
*CHLORINE	(5)	EW006909	EW006916	EW006941	EW006954	EW006978		

CHLORINE	(1)	EW006917							
CHLOROPESTICIDES	(1)	EW007204							
*CHROMATOGRAPHY	(2)	EW007204	EW007209						
CHROMATOGRAPHY	(5)	EW004140	EW004141	EW004142	EW007167	EW007168			
*CITIZEN PARTICIPATION	(21)	EW003779	EW004118	EW006449	EW006942	EW007283	EW007284	EW007285	
		EW007286	EW007287	EW007288	EW007289	EW007290	EW007291	EW007292	EW007293
		EW007294	EW007295	EW007296	EW007297	EW007298	EW007299		
CITIZEN PARTICIPATION	(1)	EW006951							
*CITIZEN ROLE	(1)	EW006872							
CITIZEN ROLE	(2)	EW003779	EW006942						
*CITY PROBLEMS	(1)	EW004116							
CLARIFICATION	(1)	EW006975							
CLARIFIERS	(1)	EW007218							
*CLASSIFICATION	(2)	EW006728	EW006737						
*CLEANING	(1)	EW006581							
CLEAN WATER ACT	(3)	EW006903	EW007084	EW007085					
COAGULANTS	(2)	EW006975	EW007036						
*COAGULATION	(2)	EW006922	EW007076						
COAGULATION	(2)	EW006918	EW006965						
*COASTAL AREAS	(1)	EW006864							
*COASTAL ZONES	(2)	EW006951	EW007035						
COASTS	(1)	EW007040							
*COBALT	(1)	EW007379							
*COLIFORMS	(1)	EW007208							
*COLLECTION SYSTEMS	(1)	EW006904							
COLOR	(1)	EW006979							
*COMBINED SEWERS	(1)	EW006217							
COMBUSTION	(1)	EW007222							
*COMMUNICATIONS	(3)	EW006974	EW007163	EW007341					
COMMUNICATIONS	(1)	EW003375							
*COMMUNICATION SKILLS	(1)	EW007127							
COMMUNICATION SKILLS	(1)	EW007079							
*COMMUNITY ACTION	(1)	EW007293							

COMMUNITY ACTION	(2)	EW007294	EW007298						
COMMUNITY COLLEGES	(2)	EW004117	EW007053						
*COMMUNITY DEVELOPMENT	(1)	EW006813							
*COMMUNITY GROUPS	(1)	EW006872							
COMMUNITY HEALTH	(1)	EW006592							
*COMMUNITY PLANNING	(2)	EW007285	EW007290						
COMMUNITY PLANNING	(3)	EW007289	EW007293	EW007294					
*COMMUNITY PROGRAMS	(1)	EW006167							
*COMMUNITY SERVICES	(2)	EW006599	EW006602						
COMMUNITY SERVICES	(2)	EW006218	EW006449						
*COMPARATIVE ANALYSIS	(1)	EW006461							
*COMPETENCY BASED EDUCATION	(2)	EW007102	EW007122						
COMPETENCY BASED EDUCATION	(21)	EW007103	EW007104	EW007105	EW007106	EW007107	EW007108	EW007109	
	EW007110	EW007111	EW007113	EW007114	EW007116	EW007117	EW007118	EW007119	
	EW007120	EW007121	EW007123	EW007124	EW007126	EW007127			
*COMPLIANCE	(1)	EW006812							
*COMPOSTING	(2)	EW006710	EW006717						
*COMPUTER APPLICATIONS	(6)	EW006221	EW006866	EW006867	EW006875	EW006988	EW007083		
COMPUTER APPLICATIONS	(3)	EW006711	EW007341	EW007342					
*COMPUTER ASSISTED INSTRUCTION	(5)	EW007054	EW007063	EW007146	EW007148	EW007342			
COMPUTER ASSISTED INSTRUCTION	(3)	EW007052	EW007053	EW007147					
COMPUTER LITERACY	(1)	EW007063							
*COMPUTER MANAGED INSTRUCTION	(1)	EW007057							
COMPUTER MANAGED INSTRUCTION	(1)	EW007146							
*COMPUTER ORIENTED PROGRAMS	(11)	EW007052	EW007053	EW007054	EW007055	EW007057	EW007063	EW007147	
	EW007148	EW007159	EW007160	EW007162					
COMPUTER ORIENTED PROGRAMS	(1)	EW007202							
*COMPUTER PROGRAMS	(4)	EW006866	EW006867	EW006990	EW007159				
*COMPUTERS	(6)	EW006461	EW007052	EW007156	EW007163	EW007341	EW007342		
COMPUTERS	(3)	EW006221	EW007159	EW007202					
COMPUTER SCIENCE	(1)	EW007163							
COMPUTER SCIENCE EDUCATION	(1)	EW007063							
*COMPUTER SOFTWARE	(1)	EW007083							
*COMPUTER STORAGE DEVICES	(1)	EW007057							

CONCRETE TANKS	(1)	EW006884							
*CONFERENCE PRECEEDINGS	(1)	EW007021							
*CONFERENCE PROCEEDINGS	(5)	EW006888	EW006891	EW007381	EW007385	EW007396			
CONFERENCES	(1)	EW007152							
CONFINED AREAS	(1)	EW007030							
*CONSERVATION	(4)	EW006848	EW006986	EW007039	EW007385				
CONSERVATION	(3)	EW006860	EW006889	EW007307					
CONSERVATION EDUCATION	(1)	EW007298							
*CONSERVATION (ENVIRONMENT)	(2)	EW007086	EW007298						
CONSERVATION (ENVIRONMENT)	(1)	EW004118							
*CONSTRUCTION	(3)	EW006187	EW006220	EW007197					
CONSTRUCTION	(6)	EW006586	EW007174	EW007179	EW007180	EW007221	EW007309		
CONSTRUCTION COSTS	(1)	EW006164							
*CONSTRUCTION GRANTS	(4)	EW006969	EW006970	EW006971	EW006972				
CONSTRUCTION GRANTS	(1)	EW007278							
*CONSULTANTS	(2)	EW006223	EW007020						
*CONSULTING ENGINEERS	(1)	EW006452							
*CONSUMER DEMAND	(1)	EW006867							
*CONTAMINANTS	(4)	EW006868	EW007201	EW007361	EW007362				
CONTAMINANTS	(2)	EW006918	EW006921						
*CONTAMINATION	(2)	EW006896	EW006955						
*CONTINUING EDUCATION	(2)	EW007156	EW007365						
CONTINUING EDUCATION	(2)	EW007087	EW007088						
CONTRACTORS	(1)	EW007178							
*CONTROL SYSTEMS	(1)	EW007357							
CONTROL TECHNIQUES	(1)	EW007046							
*COOLING SYSTEMS	(1)	EW006726							
*COOPERATIVE PLANNING	(2)	EW006218	EW006220						
*CORPS OF ENGINEERS	(1)	EW007178							
*CORROSION	(3)	EW006216	EW007179	EW007180					
*COSHOCKTON WHEEL SAMPLERS	(1)	EW006874							
*COST EFFECTIVENESS	(16)	EW006164	EW006167	EW006420	EW006422	EW006591	EW006631	EW006888	
		EW006987	EW007075	EW007083	EW007146	EW007156	EW007157	EW007178	EW007210

COST EFFECTIVENESS	EW007283							
	(14)	EW006054	EW006315	EW006392	EW006593	EW006875	EW006905	EW006943
	EW007016	EW007027	EW007050	EW007053	EW007152	EW007160	EW007355	
*COSTS	(14)	EW006212	EW006213	EW006214	EW006215	EW006217	EW006218	EW006219
	EW006220	EW006224	EW006586	EW006967	EW006985	EW006986	EW007181	
COSTS	(5)	EW006631	EW006710	EW006718	EW006885	EW006965		
*COURSE CONTENT	(1)	EW007173						
COURSE DESCRIPTIONS	(1)	EW007217						
COURSE OBJECTIVES	(1)	EW007054						
*CREATIVITY	(1)	EW007375						
*CURRENTS (OCEAN)	(1)	EW007040						
*CURRICULUM	(7)	EW006976	EW006977	EW006978	EW006979	EW006980	EW006981	EW007214
CURRICULUM	(1)	EW006982						
*CURRICULUM DEVELOPMENT	(1)	EW004117						
*CURRICULUM EVALUATION	(1)	EW004117						
CURRICULUM GUIDES	(1)	EW004117						
CYLINDERS	(1)	EW007229						
DAMS	(1)	EW007178						
*DATA ANALYSIS	(6)	EW006920	EW007121	EW007169	EW007206	EW007360	EW007383	
DATA ANALYSIS	(4)	EW007170	EW007173	EW007359	EW007364			
*DATA BASES	(1)	EW007391						
*DATABASES	(1)	EW007057						
*DATA COLLECTION	(4)	EW006221	EW006875	EW006990	EW007202			
DATA COLLECTION	(3)	EW007107	EW007173	EW007391				
*DATA COMMUNICATIONS	(1)	EW007341						
DATA INTERPRETATION	(1)	EW007360						
DATA MANAGEMENT	(1)	EW007341						
*DATA PROCESSING	(1)	EW007206						
DATA PROCESSING	(1)	EW007156						
*DECISION MAKING	(1)	EW007360						
DECISION MAKING	(1)	EW003779						
*DE-ICING	(1)	EW006894						
*DELIVERY SYSTEMS	(2)	EW007084	EW007085					

*DENITRIFICATION
*DESIGN

(1)	EW006708							
(32)	EW001386	EW006164	EW006187	EW006214	EW006215	EW006217	EW006220	
EW006221	EW006339	EW006381	EW006586	EW006593	EW006726	EW006756	EW006866	
EW006943	EW006958	EW006965	EW006967	EW007012	EW007014	EW007018	EW007046	
EW007050	EW007074	EW007075	EW007077	EW007197	EW007205	EW007207	EW007309	
EW007353								

DESIGN

(20)	EW005885	EW006715	EW006891	EW006904	EW006952	EW006964	EW006969	
EW006970	EW006971	EW006972	EW006975	EW007021	EW007174	EW007218	EW007219	
EW007220	EW007221	EW007243	EW007355	EW007383				

*DETECTION

(2)	EW007222	EW007394						
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*DETROIT

(1)	EW006903							
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*DEVELOPING COUNTRIES

(1)	EW006910							
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DEVELOPMENT

(1)	EW006864							
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*DEWATERING

(2)	EW006906	EW007310						
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DEWATERING

(2)	EW006905	EW006975						
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*DICTIONARIES

(1)	EW006915							
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*DIFFUSION

(1)	EW006989							
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*DIRECTORIES

(4)	EW006384	EW006452	EW006871	EW007020				
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*DISASTERS

(1)	EW006602							
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*DISEASE CONTROL

(2)	EW006739	EW007114						
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DISEASE CONTROL

(1)	EW006585							
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*DISEASES

(1)	EW006739							
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DISEASES

(2)	EW006584	EW007029						
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*DISINFECTION

(6)	EW006585	EW006712	EW006736	EW006954	EW007050	EW007414		
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DISINFECTION

(3)	EW006566	EW006584	EW006965					
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*DISPERSANTS

(1)	EW006583							
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*DISPLAY SYSTEMS

(1)	EW007159							
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*DISPOSAL SITES

(1)	EW006374							
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*DISSOLVED OXYGEN

(2)	EW006722	EW007017						
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DISSOLVED OXYGEN

(1)	EW006966							
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*DISTRIBUTION SYSTEMS

(2)	EW004138	EW004144						
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DRILLING

(1)	EW006953							
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*DRINKING WATER

(30)	EW004140	EW004141	EW004143	EW004144	EW006054	EW006137	EW006216	
EW006218	EW006419	EW006422	EW006584	EW006585	EW006737	EW006739	EW006883	
EW006916	EW006917	EW006918	EW006919	EW006921	EW006922	EW006923	EW006954	
EW006955	EW006968	EW007029	EW007209	EW007210	EW007361	EW007362		

DRINKING WATER

(5)	EW004142	EW006920	EW007166	EW007206	EW007208			
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*DUMP SITES	(1)	EW006591							
*DUMPSITES	(2)	EW006592	EW006593						
DUST	(1)	EW007126							
E. COLI	(1)	EW006739							
*ECOLOGICAL EFFECTS	(1)	EW006941							
*ECOLOGICAL FACTORS	(3)	EW007384	EW007390	EW007391					
ECOLOGICAL FACTORS	(2)	EW004116	EW007392						
*ECOLOGY	(12)	EW006809	EW006856	EW006857	EW006858	EW006951	EW007023	EW007033	
	EW007034	EW007043	EW007392	EW007396	EW007413				
ECOLOGY	(4)	EW004116	EW006653	EW007020	EW007086				
*ECONOMIC FACTORS	(5)	EW006164	EW006867	EW006987	EW007181	EW007307			
ECONOMIC FACTORS	(7)	EW006890	EW006951	EW007178	EW007223	EW007283	EW007308	EW007414	
ECONOMIC IMPACTS	(1)	EW007036							
*ECONOMICS	(4)	EW006167	EW006585	EW006618	EW006756				
ECONOMICS	(5)	EW006813	EW006859	EW007043	EW007089	EW007283			
*ECOSYSTEMS	(2)	EW006725	EW007392						
ECOSYSTEMS	(1)	EW006721							
*EDUCATIONAL ADMINISTRATION	(1)	EW007146							
*EDUCATIONAL ASSESSMENT	(1)	EW007155							
*EDUCATIONAL CHANGE	(2)	EW007063	EW007155						
*EDUCATIONAL DEVELOPMENT	(1)	EW007063							
EDUCATIONAL EQUIPMENT	(1)	EW007153							
EDUCATIONAL FINANCE	(1)	EW007156							
*EDUCATIONAL IMPROVEMENT	(1)	EW007164							
*EDUCATIONAL MEDIA	(2)	EW007055	EW007157						
EDUCATIONAL MEDIA	(1)	EW007052							
*EDUCATIONAL NEEDS	(3)	EW006222	EW006422	EW006846					
EDUCATIONAL NEEDS	(1)	EW007053							
*EDUCATIONAL OBJECTIVES	(1)	EW006845							
*EDUCATIONAL PLANNING	(3)	EW007053	EW007146	EW007155					
EDUCATIONAL PLANNING	(1)	EW007054							
*EDUCATIONAL PROGRAMS	(1)	EW006846							

*EDUCATIONAL RESEARCH	(1)	EW007342							
*EDUCATIONAL TECHNOLOGY	(3)	EW007148	EW007153	EW007342					
EDUCATIONAL TECHNOLOGY	(2)	EW007055	EW007163						
EDUCATIONAL TELEVISION	(1)	EW007158							
*EFFICIENCY	(1)	EW006164							
*EFFLUENTS	(6)	EW006164	EW006584	EW006718	EW006732	EW006855	EW006856		
EFFLUENTS	(3)	EW006880	EW006941	EW007012					
ELECTRICAL SYSTEMS	(1)	EW006945							
*ELECTROCHEMICAL ANALYZERS	(1)	EW007210							
ELECTROLYSIS	(1)	EW007036							
*ELECTRONIC EQUIPMENT	(1)	EW007052							
ELECTRONIC EQUIPMENT	(1)	EW007150							
ELEMENTARY SECONDARY EDUCATION	(7)	EW007052	EW007054	EW007056	EW007063	EW007153	EW007155	EW007164	
*EMISSIONS	(1)	EW007222							
*EMISSION SPECTROSCOPY	(1)	EW007182							
*EMPLOYEE RELATIONS	(1)	EW007079							
EMPLOYEE RELATIONS	(1)	EW003375							
*EMPLOYMENT OPPORTUNITIES	(1)	EW007049							
*EMPLOYMENT SKILLS	(1)	EW007049							
*ENERGY	(2)	EW006213	EW006631						
ENERGY	(5)	EW006219	EW007043	EW007381	EW007384	EW007391			
*ENERGY CONSERVATION	(1)	EW006985							
*ENERGY PRODUCTION	(1)	EW007381							
ENFORCEMENT	(1)	EW006859							
*ENGINEERING	(14)	EW006137	EW006217	EW006219	EW006223	EW006452	EW006572	EW006581	
		EW006586	EW006593	EW006631	EW006812	EW006891	EW006988	EW007375	
ENGINEERING	(8)	EW004139	EW006214	EW006860	EW006894	EW006945	EW006975	EW007266	
		EW007394							
*ENGINEERING EDUCATION	(2)	EW007164	EW007375						
ENGINEERING EDUCATION	(1)	EW007365							
*ENGINEERS	(1)	EW006452							
ENTOMOLOGY	(1)	EW007124							
*ENVIRONMENT	(15)	EW003818	EW004118	EW006167	EW006585	EW006676	EW006730	EW006859	
		EW006860	EW007020	EW007023	EW007044	EW007379	EW007383	EW007384	EW007396

ENVIRONMENT	(5)	EW000153	EW006702	EW006724	EW007033	EW007043		
*ENVIRONMENTAL ASSESSMENT	(1)	EW007390						
ENVIRONMENTAL ASSESSMENT TECHNIQUE	(1)	EW007284						
*ENVIRONMENTAL CRITERIA	(1)	EW007413						
*ENVIRONMENTAL EDUCATION	(21)	EW006601	EW005809	EW007086	EW007283	EW007284	EW007285	EW007286
		EW007287	EW007288	EW007290	EW007291	EW007292	EW007293	EW007294
		EW007295	EW007296	EW007297	EW007298	EW007299	EW007365	
ENVIRONMENTAL EDUCATION	(28)	EW004116	EW007102	EW007103	EW007104	EW007105	EW007106	EW007107
		EW007108	EW007109	EW007110	EW007111	EW007113	EW007114	EW007115
		EW007117	EW007118	EW007119	EW007120	EW007121	EW007122	EW007123
		EW007125	EW007126	EW007127	EW007281	EW007282		EW007124
*ENVIRONMENTAL HEALTH	(12)	EW007102	EW007103	EW007104	EW007108	EW007115	EW007118	EW007119
		EW007122	EW007123	EW007124	EW007127	EW007365		
ENVIRONMENTAL HEALTH	(14)	EW007105	EW007106	EW007107	EW007109	EW007110	EW007111	EW007113
		EW007114	EW007116	EW007117	EW007120	EW007121	EW007125	EW007126
*ENVIRONMENTAL IMPACT	(2)	EW006582	EW006676					
*ENVIRONMENTAL IMPACT STATEMENTS	(2)	EW007390	EW007391					
*ENVIRONMENTAL INDICES	(1)	EW007383						
*ENVIRONMENTAL INFLUENCES	(7)	EW006676	EW006702	EW006727	EW006730	EW006731	EW006732	EW007284
ENVIRONMENTAL INFLUENCES	(1)	EW006726						
*ENVIRONMENTAL LEGISLATION	(2)	EW006953	EW007023					
ENVIRONMENTAL LEGISLATION	(3)	EW006888	EW007278	EW007384				
*ENVIRONMENTAL MANAGEMENT	(1)	EW007020						
ENVIRONMENTAL MANAGEMENT	(1)	EW006888						
*ENVIRONMENTAL MONITORING	(1)	EW007105						
*ENVIRONMENTAL PROBLEMS	(1)	EW006266						
*ENVIRONMENTAL PROTECTION AGENCY	(1)	EW007165						
*ENVIRONMENTAL QUALITY	(3)	EW006135	EW006266	EW007043				
ENVIRONMENTAL RESEARCH	(1)	EW006809						
*ENVIRONMENTAL SCIENCE	(1)	EW007171						
*ENVIRONMENTAL STANDARDS	(2)	EW007291	EW007359					
ENVIRONMENTAL STANDARDS	(2)	EW007086	EW007287					
*ENVIRONMENTAL TECHNICIANS	(9)	EW006871	EW006976	EW006977	EW006978	EW006979	EW006980	EW006981
		EW006982	EW007118					
ENVIRONMENTAL TECHNICIANS	(27)	EW007102	EW007103	EW007104	EW007105	EW007106	EW007107	EW007108
		EW007109	EW007110	EW007111	EW007113	EW007114	EW007115	EW007116
		EW007119	EW007120	EW007121	EW007122	EW007123	EW007124	EW007125
		EW007127	EW007281	EW007282	EW007297			EW007126

*ENVIRONMENTAL TOXICITY ENZYMES	(1)	EW007395							
	(1)	EW007389							
*EPA CONSENT DECREE	(1)	EW007015							
*EQUIPMENT	(26)	EW004139	EW004144	EW006214	EW006217	EW006219	EW006221	EW006223	
		EW006278	EW006339	EW006572	EW006593	EW006602	EW006651	EW006756	EW006812
		EW006906	EW006945	EW007090	EW007091	EW007092	EW007093	EW007094	EW007098
		EW007227	EW007229	EW007230					
EQUIPMENT	(25)	EW003818	EW004138	EW006329	EW006885	EW006896	EW006943	EW007018	
		EW007021	EW007026	EW007074	EW007075	EW007076	EW007077	EW007078	EW007097
		EW007100	EW007203	EW007218	EW007219	EW007221	EW007228	EW007231	EW007356
		EW007357	EW007394						
*EQUIPMENT EVALUATION	(2)	EW006461	EW007202						
*EQUIPMENT INSTALLATION	(1)	EW007356							
*EQUIPMENT MAINTENANCE	(2)	EW007087	EW007088						
*EQUIPMENT UTILIZATION	(1)	EW002908							
EQUIPMENT UTILIZATION	(1)	EW002963							
*EROSION	(1)	EW007035							
EROSION	(2)	EW007045	EW007355						
*EROSION CONTROL	(1)	EW007197							
*ESTUARIES	(5)	EW006724	EW006725	EW006734	EW006864	EW006868			
ESTUARIES	(3)	EW006941	EW007033	EW007034					
ETHANOL	(1)	EW007381							
*EUTROPHICATION	(2)	EW006720	EW006721						
EUTROPHICATION	(1)	EW006137							
*EVALUATION	(24)	EW005885	EW006224	EW006313	EW006315	EW006323	EW006461	EW006844	
		EW006845	EW006848	EW006884	EW006885	EW006907	EW006919	EW006920	EW006942
		EW007043	EW007078	EW007079	EW007165	EW007174	EW007178	EW007243	EW007262
		EW007278							
EVALUATION	(15)	EW003967	EW006164	EW006875	EW006889	EW006969	EW006970	EW006971	
		EW006972	EW006974	EW007084	EW007085	EW007214	EW007342	EW007364	EW007390
*EXAMINATIONS	(1)	EW006844							
*EXTENSION EDUCATION	(1)	EW007158							
*FACILITIES	(42)	EW001386	EW006164	EW006187	EW006215	EW006217	EW006219	EW006220	
		EW006278	EW006339	EW006586	EW006703	EW006706	EW006711	EW006716	EW006756
		EW006891	EW006903	EW006904	EW006905	EW006906	EW006943	EW006958	EW006964
		EW006970	EW006971	EW006972	EW006973	EW007012	EW007046	EW007074	EW007075
		EW007076	EW007077	EW007078	EW007087	EW007088	EW007174	EW007205	EW007207
		EW007235	EW007353	EW007363					
FACILITIES	(16)	EW006592	EW006593	EW006651	EW006707	EW006726	EW006907	EW006946	
		EW006965	EW006967	EW006969	EW007021	EW007050	EW007219	EW007238	EW007262
		EW007309							

*FACILITY GUIDELINES	(1)	EW004169					
FECAL COLIFORM	(1)	EW006583					
FEDERAL AID	(1)	EW007285					
*FEDERAL GOVERNMENT	(1)	EW006942					
*FEDERAL PROGRAMS	(1)	EW006599					
FEDERAL PROGRAMS	(2)	EW004118	EW007164				
*FEDERAL ROLE	(2)	EW006187	EW006599				
*FEDERAL WATER POLLUTION CONTROL ACT	(1)	EW007276					
*FEEDLOTS	(1)	EW006880					
*FERTILIZERS	(2)	EW006881	EW007042				
*FIELD STUDIES	(2)	EW006224	EW007358				
*FILMS	(1)	EW000153					
*FILTERS	(2)	EW006704	EW007016				
FILTERS	(4)	EW006906	EW007012	EW007229	EW007231		
*FILTRATION	(5)	EW006214	EW006908	EW006909	EW007074	EW007076	
FILTRATION	(5)	EW006137	EW006419	EW006963	EW006973	EW007077	
*FINANCIAL SUPPORT	(1)	EW007160					
*FINANCING	(2)	EW006215	EW006422				
FIRE PREVENTION	(1)	EW007183					
*FISH	(1)	EW006732					
*FISHERIES	(1)	EW006582					
FISHERIES	(1)	EW006931					
FISHING	(1)	EW006953					
*FISHING INDUSTRY	(1)	EW007036					
FLOOD CONTROL	(1)	EW007211					
*FLOODING	(1)	EW006217					
*FLOODPLAINS	(1)	EW006676					
*FLOW EQUALIZATION	(1)	EW006967					
FLOW EQUALIZATION	(1)	EW007027					
*FLOW MEASUREMENT	(6)	EW006812	EW006885	EW006967	EW007095	EW007097	EW007262
FLOW MEASUREMENT	(2)	EW006214	EW007307				
*FLOW RATE	(1)	EW006989					

*FLOW RATES	(1)	EW006988				
FLOW RATES	(1)	EW006986				
FLOW REGULATION	(1)	EW007174				
*FLUID MECHANICS	(5)	EW007227	EW007228	EW007229	EW007230	EW007231
*FLUID POWER	(5)	EW007227	EW007228	EW007229	EW007230	EW007231
*FLUIDS	(2)	EW007097	EW007098			
*FLUMES	(1)	EW007262				
*FLUORIDES	(2)	EW007361	EW007362			
FOOD	(1)	EW007201				
*FORCE	(1)	EW007095				
*FORECASTING	(1)	EW006867				
FORESTRY	(1)	EW007292				
FOSSIL FUELS	(1)	EW006135				
*FUELS	(2)	EW006631	EW007381			
*FUNDING	(1)	EW006422				
*GAS CHROMATOGRAPHY	(1)	EW007209				
GASES	(1)	EW007183				
GASIFICATION	(1)	EW007381				
GEOGRAPHY	(1)	EW007044				
GEOHYDROLOGY	(1)	EW006896				
*GEOLOGY	(2)	EW003969	EW006958			
GEOLOGY	(2)	EW006940	EW007286			
GLOBAL ECOLOGY	(1)	EW007044				
*GOVERNMENT AGENCIES	(1)	EW007178				
*GOVERNMENT ROLE	(2)	EW006942	EW007164			
GOVERNMENT ROLE	(2)	EW006222	EW006951			
GRADUATE SURVEYS	(1)	EW004117				
*GRANT PROGRAMS	(2)	EW006971	EW006972			
GRANT PROGRAMS	(2)	EW006969	EW006970			
*GRANTS	(1)	EW006187				
GRANTS	(2)	EW006586	EW006942			
*GRANULAR ACTIVATED CARBON	(3)	EW006737	EW006917	EW006923		

GRANULAR ACTIVATED CARBON	(1)	EW006922							
*GRAPHIS	(1)	EW007121							
GREASE	(2)	EW006966	EW006979						
*GROUNDWATER	(14)	EW006213	EW006572	EW006714	EW006723	EW006736	EW006896	EW006940	
		EW006946	EW006952	EW007014	EW007032	EW007041	EW007042	EW007286	
GROUNDWATER	(6)	EW006880	EW006908	EW006909	EW007019	EW007045	EW007389		
*GUIDELINES	(9)	EW006187	EW006323	EW006812	EW006884	EW006974	EW007078	EW007147	
		EW007197	EW007221						
GUIDELINES	(3)	EW001386	EW007165	EW007214					
*GUIDES	(3)	EW006599	EW007026	EW007390					
GUIDES	(2)	EW006977	EW007355						
*HANDBOOKS	(4)	EW006764	EW006945	EW006970	EW007390				
HARDWARE	(1)	EW007341							
*HAZARDOUS MATERIALS	(4)	EW006054	EW006216	EW007379	EW007396				
HAZARDOUS MATERIALS	(4)	EW006868	EW007021	EW007391	EW007395				
*HAZARDOUS WASTES	(10)	EW006135	EW006219	EW006374	EW006384	EW006591	EW006592	EW006593	
		EW006601	EW006602	EW006719					
*HAZARDS	(2)	EW006902	EW007030						
*HEALTH	(11)	EW006135	EW006137	EW006419	EW006584	EW006585	EW006586	EW006591	
		EW006618	EW006717	EW006764	EW007384				
HEALTH	(4)	EW006054	EW006216	EW006571	EW007086				
*HEALTH EFFECTS	(2)	EW007011	EW007014						
HEALTH EFFECTS	(3)	EW007043	EW007089	EW007394					
*HEALTH HAZARDS	(1)	EW007379							
*HEAVY METALS	(4)	EW006728	EW006729	EW007203	EW007379				
HEAVY METALS	(2)	EW006571	EW007384						
*HIGHER EDUCATION	(3)	EW007375	EW007383	EW007394					
HIGHER EDUCATION	(20)	EW007052	EW007053	EW007055	EW007056	EW007057	EW007063	EW007146	
		EW007147	EW007152	EW007153	EW007155	EW007156	EW007157	EW007158	
		EW007159	EW007162	EW007163	EW007164	EW007202			
HIGHWAYS	(1)	EW006894							
*HISTORY	(2)	EW006883	EW007047						
*HOISTS	(1)	EW007090							

*HUMAN ECOLOGY	(1)	EW007044						
HUMAN RELATIONS	(1)	EW007127						
*HUMIC SUBSTANCES	(1)	EW006922						
*HYDRAULICS	(6)	EW006945	EW006988	EW007227	EW007228	EW007229	EW007231	
HYDRAULICS	(1)	EW007230						
*HYDRAULIC SYSTEMS	(1)	EW007230						
*HYDROCARBONS	(2)	EW006582	EW006583					
HYDRODYNAMICS	(1)	EW006855						
*HYDROLOGY	(7)	EW006855	EW006875	EW006893	EW006896	EW006958	EW006989	EW007045
HYDROLOGY	(5)	EW006864	EW006988	EW007041	EW007173	EW007286		
HYDROLYSIS	(1)	EW007381						
*HYDROSTATICS	(1)	EW007228						
HYDROSTATICS	(1)	EW007227						
*HYPOCHLORITE GENERATION	(1)	EW007050						
ICP EMISSION SPECTROSCOPY	(1)	EW007182						
*IDABO	(1)	EW004169						
IDENTIFICATION	(1)	EW007364						
*IMPLEMENTATION	(1)	EW007197						
IMPLEMENTATION	(1)	EW006859						
*INDEPENDENT STUDY	(1)	EW007157						
*INDEXES	(2)	EW006860	EW007391					
*INDEXES (LOCATORS)	(1)	EW006871						
*INDIA	(1)	EW006916						
*INDIANA	(2)	EW007158	EW007207					
*INDIANA UNIVERSITY	(1)	EW007156						
*INDICATORS	(2)	EW006585	EW007389					
*INDICATOR SPECIES	(1)	EW006734						
*INDIVIDUAL DEVELOPMENT	(1)	EW007056						
*INDIVIDUALIZED INSTRUCTION	(1)	EW006315						
*INDUSTRIAL PRETREATMENT	(1)	EW007010						
INDUSTRIAL SAFETY	(1)	EW007030						
*INDUSTRIAL TECHNOLOGY	(2)	EW006565	EW006651					

INDUSTRIAL TECHNOLOGY	(10)	EW006566	EW007092	EW007093	EW007094	EW007095	EW007097	EW007098
	EW007099	EW007100	EW007101					
*INDUSTRIAL WASTES	(13)	EW006374	EW006566	EW006718	EW006719	EW006732	EW006741	EW006856
	EW006881	EW006890	EW007016	EW007027	EW007038	EW007089		
INDUSTRIAL WASTES	(5)	EW006384	EW006882	EW006903	EW007021	EW007201		
INDUSTRIAL WASTEWATER	(1)	EW006714						
*INDUSTRIES	(1)	EW007211						
INDUSTRIES	(1)	EW007027						
*INDUSTRY	(7)	EW006135	EW006565	EW006718	EW006889	EW006890	EW007036	EW007287
INDUSTRY	(3)	EW007384	EW007390	EW007413				
INFILTRATION	(2)	EW006885	EW007355					
*INFLUENTS	(1)	EW007011						
*INFORMATION CENTERS	(1)	EW006599						
*INFORMATION DISSEMINATION	(3)	EW004118	EW007159	EW007160				
INFORMATION DISSEMINATION	(1)	EW007163						
*INFORMATION NETWORKS	(2)	EW007160	EW007163					
INFORMATION NETWORKS	(1)	EW007156						
INFORMATION PROCESSING	(2)	EW007057	EW007202					
*INFORMATION RETRIEVAL	(1)	EW007057						
INFORMATION SCIENCE	(1)	EW007163						
*INFORMATION SERVICES	(1)	EW007159						
INFORMATION SERVICES	(1)	EW007160						
*INFORMATION SOURCES	(1)	EW006599						
INFORMATION SOURCES	(1)	EW006952						
INFORMATION STORAGE	(1)	EW007057						
*INFORMATION SYSTEMS	(3)	EW007159	EW007163	EW007206				
*INFRARED PHOTOGRAPHY	(1)	EW006873						
*INNOVATIONS	(1)	EW007309						
INORGANIC COMPOUNDS	(1)	EW007026						
*INSECTICIDES	(1)	EW006732						
INSERVICE EDUCATION	(2)	EW007281	EW007282					
*INSPECTION	(4)	EW006812	EW006804	EW007178	EW007238			
INSPECTION	(1)	EW007243						

INSPECTORS	(1)	EW007238							
*INSTALLATION	(1)	EW007091							
INSTALLATION	(2)	EW006945	EW007262						
*INSTRUCTION	(5)	EW003967	EW003968	EW006601	EW006846	EW007342			
INSTRUCTION	(1)	EW006845							
*INSTRUCTIONAL DEVELOPMENT	(2)	EW007053	EW007054						
INSTRUCTIONAL DEVELOPMENT	(1)	EW007160							
*INSTRUCTIONAL FILMS	(1)	EW000133							
*INSTRUCTIONAL IMPROVEMENT	(2)	EW003967	EW007160						
*INSTRUCTIONAL INNOVATION	(3)	EW007052	EW007055	EW007153					
INSTRUCTIONAL INNOVATION	(1)	EW007053							
*INSTRUCTIONAL MATERIALS	(101)	EW003375	EW003818	EW005885	EW006266	EW006315	EW006323	EW006339	
		EW006565	EW006566	EW006567	EW006618	EW006872	EW006883	EW006940	EW006941
		EW006945	EW006946	EW006954	EW006955	EW006962	EW006965	EW006966	EW006968
		EW006969	EW006970	EW006971	EW006972	EW006975	EW006976	EW006977	EW006978
		EW006979	EW006980	EW006981	EW006982	EW006983	EW006984	EW007023	EW007029
		EW007030	EW007031	EW007045	EW007054	EW007083	EW007090	EW007091	EW007092
		EW007093	EW007094	EW007095	EW007097	EW007098	EW007099	EW007100	EW007101
		EW007122	EW007157	EW007166	EW007167	EW007171	EW007172	EW007173	EW007182
		EW007183	EW007214	EW007217	EW007218	EW007219	EW007220	EW007221	EW007222
		EW007223	EW007225	EW007227	EW007228	EW007229	EW007230	EW007231	EW007238
		EW007243	EW007262	EW007266	EW007281	EW007282	EW007335	EW007341	EW007353
		EW007355	EW007356	EW007357	EW007360	EW007361	EW007362	EW007364	EW007375
		EW007383	EW007384	EW007389	EW007394	EW007395	EW007414		
INSTRUCTIONAL MATERIALS	(8)	EW002908	EW002963	EW003375	EW006974	EW007087	EW007088	EW007102	
		EW007153							
*INSTRUCTIONAL MEDIA	(1)	EW006974							
INSTRUCTIONAL SYSTEMS	(1)	EW007155							
*INSTRUMENTATION	(11)	EW006565	EW007092	EW007093	EW007094	EW007097	EW007098	EW007099	
		EW007101	EW007168	EW007202	EW007357				
INSTRUMENTATION	(3)	EW003818	EW004140	EW007095					
*INTERNATIONAL COOPERATION	(1)	EW006882							
*INTERNATIONAL LAWS	(1)	EW006953							
INTERVIEWS	(1)	EW004118							
*INVENTORIES	(1)	EW007079							
*INVERTEBRATES	(2)	EW006730	EW006731						
ION EXCHANGE	(1)	EW006703							
*IRRIGATION	(3)	EW006584	EW007014	EW007042					
IRRIGATION	(4)	EW006213	EW006714	EW007041	EW007211				

*ISRAEL	(1)	EW006907							
*JAMES RIVER	(1)	EW006868							
*JET INJECTIONS	(1)	EW006989							
*JOB ANALYSIS	(1)	EW001386							
*JOB SIMPLIFICATION	(1)	EW007162							
*JOB SKILLS	(3)	EW006315	EW007087	EW007088					
JOB SKILLS	(8)	EW002908	EW002963	EW003375	EW003967	EW004117	EW007079	EW007281	
		EW007282							
JUNIOR COLLEGES	(1)	EW004117							
*LABORATORY ANALYSES	(3)	EW004140	EW004141	EW004142					
*LABORATORY EQUIPMENT	(6)	EW002908	EW007120	EW007123	EW007124	EW007168	EW007170		
LABORATORY EQUIPMENT	(4)	EW002963	EW007162	EW007202	EW007217				
*LABORATORY MANUALS	(1)	EW007282							
*LABORATORY METHODS	(1)	EW004142							
*LABORATORY PROCEDURES	(28)	EW002908	EW002963	EW006422	EW006565	EW006729	EW006735	EW006738	
		EW006740	EW006764	EW006892	EW006954	EW006966	EW006968	EW006973	
		EW007115	EW007118	EW007119	EW007166	EW007167	EW007169	EW007170	
		EW007172	EW007217	EW007358	EW007359	EW007364			
LABORATORY PROCEDURES	(12)	EW006712	EW006976	EW006977	EW006978	EW006979	EW006980	EW006981	
		EW006982	EW007124	EW007204	EW007361	EW007362			
LABORATORY SAFETY	(1)	EW007183							
*LABORATORY TECHNIQUES	(23)	EW003818	EW003969	EW004143	EW004144	EW006735	EW006764	EW006963	
		EW006968	EW006976	EW006977	EW006978	EW006979	EW006980	EW006982	
		EW006993	EW007026	EW007031	EW007182	EW007204	EW007208	EW007209	EW007210
LABORATORY TECHNIQUES	(2)	EW007203	EW007217						
*LABORATORY TECHNOLOGY	(2)	EW007162	EW007202						
*LABORATORY TESTS	(1)	EW006935							
LABOR NEEDS	(1)	EW007297							
*LACOONS	(5)	EW006706	EW006910	EW007037	EW007038	EW007220			
*LAKES	(1)	EW006721							
LAKES	(1)	EW006734							
*LAND APPLICATION	(5)	EW006717	EW006908	EW006909	EW007014	EW007310			
LAND DISPOSAL	(1)	EW006741							
*LANDFILLS	(3)	EW006676	EW007019	EW007223					
*LAND RECLAMATION	(1)	EW006653							
*LANDSAT	(1)	EW006875							

*LAND TREATMENT	(2)	EW006715	EW006962						
LAND TREATMENT	(2)	EW006905	EW007289						
*LAND USE	(10)	EW006167	EW006374	EW006715	EW006864	EW006951	EW007023	EW007043	
	EW007289	EW007292	EW007355						
LAND USE	(9)	EW004118	EW004168	EW006215	EW006266	EW006888	EW007020	EW007021	
	EW007045	EW007223							
LAW	(1)	EW006860							
*LAWS	(2)	EW006859	EW006882						
*LEACHATE	(1)	EW007019							
LEACHATES	(1)	EW006946							
*LEACHING	(1)	EW006736							
*LEADERSHIP	(1)	EW007079							
LEADERSHIP STYLE	(1)	EW007079							
*LEAK DETECTION	(2)	EW007307	EW007308						
*LEAKS	(1)	EW007307							
LEAKS	(1)	EW007308							
*LEARNING	(1)	EW007056							
LEARNING ACTIVITIES	(2)	EW007087	EW007088						
LEARNING PROCESSES	(1)	EW007056							
*LEARNING THEORIES	(1)	EW007056							
*LEGAL ASPECTS	(1)	EW006953							
LEGAL ASPECTS	(4)	EW007023	EW007355	EW007384	EW007391				
*LEGISLATION	(4)	EW006215	EW006848	EW006859	EW007086				
LEGISLATION	(3)	EW006054	EW006384	EW006813					
*LIFE SCIENCES	(1)	EW006860							
*LIME SOFTENING	(1)	EW007310							
LIQUEFACTION	(1)	EW007381							
*LITERATURE REVIEWS	(41)	EW006702	EW006703	EW006704	EW006705	EW006706	EW006707	EW006708	
	EW006709	EW006710	EW006711	EW006712	EW006713	EW006714	EW006715	EW006716	
	EW006717	EW006718	EW006719	EW006721	EW006722	EW006723	EW006724	EW006725	
	EW006726	EW006727	EW006728	EW006729	EW006730	EW006731	EW006732	EW006733	
	EW006734	EW006735	EW006736	EW006737	EW006738	EW006739	EW006740	EW006741	
	EW006890	EW007414							
LITERATURE REVIEWS	(1)	EW007389							
*LOCAL GOVERNMENT	(1)	EW007297							
*LOCAL GOVERNMENTS	(1)	EW007023							

*MAINTENANCE	(15)	EW006164	EW006217	EW006223	EW006572	EW006713	EW006962	EW006963
	EW006969	EW006970	EW006971	EW006972	EW007083	EW007235	EW007355	EW007363
MAINTENANCE	(11)	EW006844	EW006884	EW006894	EW006985	EW007094	EW007097	EW007099
	EW007179	EW007220	EW007353	EW007356				
MAINTENANCE WORKERS	(1)	EW007049						
MAJORITY ATTITUDES	(1)	EW004116						
*MANAGEMENT	(49)	EW003375	EW003375	EW003368	EW004168	EW006167	EW006212	EW006213
	EW006215	EW006217	EW006218	EW006219	EW006220	EW006221	EW006222	EW006224
	EW006266	EW006313	EW006315	EW006323	EW006374	EW006422	EW006449	EW006592
	EW006676	EW006711	EW006716	EW006756	EW006812	EW006813	EW006844	EW006848
	EW006888	EW006905	EW006951	EW006964	EW006985	EW007029	EW007032	EW007045
	EW007074	EW007076	EW007079	EW007083	EW007173	EW007206	EW007211	EW007235
	EW007307	EW007355						
MANAGEMENT	(28)	EW005885	EW006223	EW006710	EW006718	EW006845	EW006860	EW006880
	EW006891	EW006906	EW006907	EW006943	EW006983	EW006984	EW006986	EW007020
	EW007021	EW007043	EW007044	EW007049	EW007075	EW007077	EW007084	EW007085
	EW007183	EW007205	EW007308	EW007342	EW007396			
MANHOLES	(2)	EW006902	EW007183					
MANPOWER	(1)	EW007235						
*MANPOWER TRAINING	(2)	EW007084	EW007085					
*MANUALS	(5)	EW006872	EW006889	EW007046	EW007218	EW007243		
MANUALS	(3)	EW006974	EW007220	EW007223				
*MANUFACTURING INDUSTRY	(1)	EW003968						
MAPPING	(1)	EW007211						
*MARINE BIOLOGY	(3)	EW007033	EW007034	EW007036				
MARINE BIOLOGY	(3)	EW006724	EW006857	EW006858				
*MARINE ENVIRONMENT	(3)	EW007033	EW007034	EW007040				
MARINE ORGANISMS	(1)	EW007413						
*MARINE POLLUTION	(6)	EW006582	EW006583	EW006724	EW006725	EW007035	EW007036	
*MASS	(1)	EW007095						
*MASS TRANSFER	(1)	EW007018						
*MATHEMATICAL APPLICATIONS	(3)	EW006866	EW006988	EW007383				
MATHEMATICAL APPLICATIONS	(2)	EW003968	EW006867					
*MATHEMATICAL CONCEPTS	(1)	EW007225						
*MATHEMATICAL MODELS	(3)	EW006867	EW006868	EW006986				
MATHEMATICAL MODELS	(2)	EW006565	EW006922					
*MATHEMATICS	(1)	EW007225						
MATHEMATICS	(2)	EW007018	EW007360					

MATHEMATICS CURRICULUM	(1)	EW007164						
*MATHEMATICS EDUCATION	(4)	EW003968	EW007164	EW007171	EW007360			
MATHEMATICS EDUCATION	(1)	EW007121						
*MEASUREMENT	(12)	EW006883	EW006889	EW007093	EW007094	EW007095	EW007097	EW007098
	EW007099	EW007221	EW007262	EW007357	EW007358			
MEASUREMENT	(3)	EW003968	EW007182	EW007335				
*MEASUREMENT EQUIPMENT	(11)	EW007103	EW007104	EW007105	EW007108	EW007109	EW007111	EW007113
	EW007116	EW007117	EW007120	EW007126				
MEASUREMENT EQUIPMENT	(1)	EW007106						
*MEASUREMENTS	(2)	EW006989	EW006990					
MEASUREMENTS	(1)	EW007364						
*MEASUREMENT TECHNIQUES	(5)	EW006167	EW006565	EW006940	EW007110	EW007125		
*MEDIA PRODUCTION	(1)	EW006974						
*MEDIA SELECTION	(1)	EW006974						
*MEETINGS	(2)	EW003779	EW007152					
*MERCURY	(1)	EW007184						
MERCURY	(1)	EW006881						
*METALS	(6)	EW006571	EW006728	EW007089	EW007184	EW007361	EW007362	
METALS	(4)	EW003818	EW006566	EW006567	EW006729			
*METERS	(1)	EW007097						
*METHANE	(1)	EW006631						
*METHODOLOGY	(2)	EW007078	EW007390					
METHODS	(2)	EW004118	EW007394					
*METRIC SYSTEM	(2)	EW003968	EW007221					
*MICHIGAN	(1)	EW006904						
*MICROBIAL ACTIVITY	(1)	EW006923						
*MICROBIOLOGY	(21)	EW002908	EW002963	EW004143	EW004144	EW006712	EW006727	EW006733
	EW006734	EW006735	EW006736	EW006737	EW006738	EW006740	EW006741	EW006968
	EW007015	EW007115	EW007170	EW007196	EW007359	EW007395		
MICROBIOLOGY	(7)	EW006707	EW006708	EW006717	EW006724	EW006730	EW007364	EW007389
*MICROCOMPUTERS	(6)	EW006461	EW007055	EW007063	EW007147	EW007162	EW007202	
MICROCOMPUTERS	(1)	EW007159						
*MICROORGANISMS	(2)	EW007196	EW007389					
MICROORGANISMS	(4)	EW006857	EW006858	EW007033	EW007034			

*MICROPROCESSORS	(1)	EW007202							
*MICROSCOPES	(2)	EW007124	EW007170						
*MINICOURSES	(1)	EW007365							
*MINING	(1)	EW006653							
MINING	(1)	EW006953							
MINING INDUSTRIES	(1)	EW007292							
*MODELING	(2)	EW007017	EW007018						
MODELING	(3)	EW006893	EW007043	EW007331					
*MODELS	(1)	EW007173							
MODELS	(3)	EW006567	EW006725	EW006729					
*MODIFICATIONS	(1)	EW007077							
MODIFICATIONS	(2)	EW007078	EW007353						
*MOLECULAR STUDIES	(1)	EW007395							
*MONEY MANAGEMENT	(1)	EW007299							
*MONITORING	(14)	EW006221	EW006565	EW006582	EW006601	EW006602	EW006874	EW006892	
	EW006896	EW006946	EW007076	EW007209	EW007210	EW007222	EW007358		
MONITORING	(6)	EW006566	EW006958	EW007044	EW007208	EW007217	EW007383		
*MOTION	(1)	EW007095							
MOTORS	(1)	EW007229							
*MUNICIPALITIES	(7)	EW006889	EW006903	EW006904	EW006985	EW006986	EW007023	EW007027	
MUNICIPALITIES	(6)	EW006890	EW006908	EW007037	EW007084	EW007085	EW007207		
*MUNICIPAL WASTES	(1)	EW007038							
MUNICIPAL WASTES	(1)	EW006882							
*NATIONAL PROGRAMS	(1)	EW007010							
NATIONAL SCIENCE FOUNDATION	(1)	EW007164							
*NATIONAL SURVEYS	(1)	EW007365							
*NATURAL RESOURCES	(7)	EW006213	EW006218	EW006809	EW006951	EW007020	EW007043	EW007044	
NATURAL RESOURCES	(1)	EW003818							
*NEEDS ASSESSMENT	(3)	EW007084	EW007085	EW007156					
NEEDS ASSESSMENT	(1)	EW004118							
*NETWORK ANALYSIS	(2)	EW006988	EW006990						
*NETWORKS	(2)	EW007156	EW007163						
*NEW JERSEY	(1)	EW007023							

*LIGHT SOILS	(1)	EW006708																		
*NITRATES	(3)	EW006708	EW007361	EW007362																
*NITRIFICATION	(1)	EW007012																		
NITRIFICATION	(1)	EW006708																		
*NITROGEN	(5)	EW002963	EW006135	EW006907	EW006908	EW006900														
NITROGEN	(1)	EW006966																		
NOISE	(1)	EW007390																		
NOISE POLLUTION	(1)	EW007104																		
*NOISE (SOUND)	(1)	EW007104																		
NOISE (SOUND)	(1)	EW007103																		
NOMOGRAPHS	(1)	EW006885																		
*NONPOINT POLLUTION	(6)	EW006215	EW006720	EW006873	EW006874	EW006888	EW007045													
*NONPOINT SOURCE POLLUTION	(1)	EW007292																		
NONPOINT SOURCE POLLUTION	(1)	EW007296																		
*NONPOINT SOURCES	(1)	EW006720																		
NONSCHOOL EDUCATIONAL PROGRAMS	(17)	EW007283	EW007284	EW007285	EW007286	EW007287	EW007288	EW007289												
		EW007290	EW007291	EW007292	EW007293	EW007294	EW007295	EW007296	EW007297											
		EW007298	EW007299																	
*NORTH CAROLINA	(1)	EW006916																		
*NUCLEAR PHYSICS	(1)	EW007394																		
NUTRIENT REMOVAL	(1)	EW006721																		
*NUTRIENTS	(1)	EW006721																		
NUTRIENTS	(1)	EW006908																		
NUTRITION	(1)	EW007384																		
OCCUPATIONAL DISEASES	(3)	EW007109	EW007111	EW007126																
*OCCUPATIONAL HEALTH	(9)	EW007106	EW007107	EW007109	EW007110	EW007111	EW007116	EW007117												
		EW007125	EW007126																	
OCCUPATIONAL HEALTH	(1)	EW007123																		
*OCCUPATIONAL SAFETY	(3)	EW007030	EW007107	EW007113																
OCCUPATIONAL SURVEYS	(1)	EW004117																		
*OCEANOGRAPHY	(5)	EW006951	EW007033	EW007034	EW007035	EW007040														
*OCEANOLOGY	(2)	EW006724	EW006953																	
*OCEANS	(1)	EW006953																		
*ODOR CONTROL	(1)	EW007046																		

*ODORS	(1)	EW007046							
OIL	(1)	EW006966							
*OIL POLLUTION	(1)	EW006329							
*OIL SLICKS	(1)	EW007040							
*OIL SPILLS	(3)	EW006857	EW006858	EW007238					
*OILSPILLS	(2)	EW006581	EW006583						
OIL SPILLS	(1)	EW007390							
OILSPILLS	(1)	EW006582							
*ON SITE TREATMENT	(1)	EW006943							
*ON SITE WASTEWATER DISPOSAL	(1)	EW006710							
*OPERATIONS AUDIT	(1)	EW006224							
*OPERATIONS (WASTEWATER)	(63)	EW001386	EW003375	EW006164	EW006219	EW006221	EW006223	EW006278	
	EW006339	EW006419	EW006585	EW006586	EW006704	EW006705	EW006707	EW006708	
	EW006709	EW006711	EW006712	EW006713	EW006715	EW006717	EW006718	EW006740	
	EW006741	EW006756	EW006812	EW006844	EW006871	EW006904	EW006905	EW006906	
	EW006943	EW006952	EW006958	EW006962	EW006963	EW006964	EW006965	EW006969	
	EW006970	EW006971	EW006972	EW006973	EW006975	EW006983	EW006984	EW007011	
	EW007012	EW007016	EW007017	EW007021	EW007027	EW007046	EW007050	EW007183	
	EW007214	EW007218	EW007219	EW007220	EW007235	EW007243	EW007335	EW007353	
OPERATIONS (WASTEWATER)	(6)	EW006845	EW006891	EW006907	EW007297	EW007363	EW007414		
*OPERATIONS (WATER)	(26)	EW003375	EW006137	EW006212	EW006214	EW006420	EW006422	EW006572	
	EW006756	EW006844	EW006867	EW006883	EW006918	EW006919	EW006920	EW006954	
	EW006968	EW006975	EW006985	EW007074	EW007075	EW007076	EW007077	EW007205	
	EW007208	EW007211	EW007310						
OPERATIONS (WATER)	(5)	EW002908	EW006845	EW007078	EW007206	EW007414			
*OPERATORS	(1)	EW007049							
*OPERATOR TRAINING	(4)	EW006845	EW006846	EW007223	EW007225				
OPERATOR TRAINING	(1)	EW006711							
*ORDINANCES	(1)	EW007023							
*OREGON	(1)	EW006985							
ORGANIC ANALYSES	(1)	EW006966							
ORGANIC CARBON	(1)	EW006916							
*ORGANIC CHEMISTRY	(5)	EW004140	EW004141	EW004142	EW006571	EW007166			
*ORGANIC COMPOUNDS	(9)	EW006892	EW006917	EW006921	EW007015	EW007166	EW007209	EW007210	
	EW007361	EW007362							
ORGANIC COMPOUNDS	(6)	EW006918	EW006919	EW006920	EW006923	EW007026	EW007385		
*ORGANIC WASTES	(1)	EW006631							
ORGANIC WASTES	(1)	EW006731							

*ORGANIZATIONS	(2)	EW006872	EW007047				
ORGANIZATIONS	(1)	EW006452					
*ORGANIZATIONS (GROUPS)	(1)	EW006809					
ORGANIZATIONS (GROUPS)	(3)	EW004118	EW007020	EW007294			
*OTTAWA	(1)	EW007235					
OXIDATION	(1)	EW006910					
*OXIDATION PONDS	(1)	EW006706					
*OXYGEN	(2)	EW006722	EW006978				
OXYGEN	(1)	EW002963					
*OZONATION	(1)	EW007414					
*OZONE	(1)	EW007414					
OZONE	(1)	EW006585					
*PAPER INDUSTRY	(1)	EW006718					
*PARASITES	(1)	EW006910					
PART TIME STUDENTS	(1)	EW004117					
*PATHOGENS	(2)	EW006738	EW006741				
PATHOGENS	(2)	EW006584	EW007196				
*PERFORMANCE BASED EDUCATION	(1)	EW004117					
*PERFORMANCE CRITERIA	(1)	EW003967					
*PERFORMANCE EVALUATION	(6)	EW006164	EW006967	EW007013	EW007017	EW007235	EW007243
PERFORMANCE PATHFINDER PLAN	(1)	EW007056					
*PERIPHYTON	(1)	EW007364					
*PERSONNEL	(4)	EW006212	EW006224	EW006422	EW007049		
PERSONNEL	(3)	EW006313	EW006844	EW006845			
*PEST CONTROL	(1)	EW007114					
*PESTICIDES	(6)	EW006724	EW006868	EW006892	EW007086	EW007167	EW007204
PESTICIDES	(4)	EW003818	EW006384	EW006881	EW007201		
*PETROLEUM INDUSTRY	(1)	EW006583					
*PH	(2)	EW006907	EW006977				
PH	(1)	EW006712					
*PHENOLS	(1)	EW007016					
*PHOSPHATES	(1)	EW002963					

*PHOSPHORUS	(2)	EW006909	EW006980						
*PHOTOGRAPHY	(1)	EW006873							
*PHYSICAL-CHEMICAL TREATMENT	(1)	EW006965							
PHYSICAL RESOURCES	(1)	EW007391							
*PHYSICAL SCIENCES	(1)	EW006860							
*PHYSICAL TREATMENT	(1)	EW006703							
*PHYSICS	(1)	EW007095							
PHYSICS	(3)	EW003969	EW006945	EW007094					
*PHYSIOLOGY	(1)	EW006856							
*PICTUREPHONE MEETING SERVICE	(1)	EW007152							
PILOT FILTERS	(1)	EW007076							
*PILOT PROJECTS	(1)	EW007174							
*PIPE FLOW	(1)	EW006866							
*PIPES	(6)	EW004138	EW006713	EW006866	EW006988	EW007179	EW007180		
PIPES	(2)	EW006216	EW006945						
*PIPES (WATER)	(1)	EW006989							
PIPES (WATER)	(1)	EW006572							
*PLANKTON	(1)	EW007364							
*PLANNING	(31)	EW006167	EW006187	EW006212	EW006213	EW006215	EW006217	EW006218	
		EW006220	EW006223	EW006266	EW006449	EW006592	EW006601	EW006602	
		EW006618	EW006676	EW006813	EW006844	EW006845	EW006848	EW006889	EW006951
		EW006971	EW006972	EW007032	EW007039	EW007044	EW007165	EW007197	EW007284
PLANNING	(20)	EW003375	EW006586	EW006864	EW006872	EW006893	EW006943	EW006967	
		EW006969	EW006970	EW006985	EW006987	EW007020	EW007042	EW007045	EW007089
		EW007173	EW007283	EW007285	EW007288	EW007291			
*PLANT CAPACITY	(2)	EW007075	EW007077						
PLANT COMMUNITIES	(1)	EW007392							
*PLANT PERFORMANCE	(1)	EW007075							
PLANTS	(2)	EW006857	EW006858						
*PLASTIC PIPES	(1)	EW004138							
PLATO	(1)	EW007055							
*PNEUMATICS	(1)	EW007228							
POISONING	(1)	EW007086							
POLAR STUDIES	(1)	EW007203							
*POLICIES	(1)	EW006585							

*POLICY
POLITICAL ISSUES

(1) EW006953
(1) EW006859

*POLLUTANTS

(1) EW006329

POLLUTANTS

(4) EW006167 EW006571 EW007011 EW007027

*POLLUTION

(26) EW006135 EW006374 EW006567 EW006571 EW006581 EW006583 EW006653
EW006724 EW006725 EW006726 EW006732 EW006856 EW006857 EW006858 EW006864
EW006880 EW006881 EW006882 EW006894 EW007035 EW007036 EW007040 EW007041
EW007042 EW007043 EW007389

POLLUTION

(12) EW000153 EW003969 EW004116 EW006054 EW006565 EW006582 EW006873
EW006982 EW007033 EW007034 EW007286 EW007296

*POLLUTION CONTROL

(15) EW006868 EW006871 EW006888 EW006903 EW006915 EW007010 EW007019
EW007021 EW007023 EW007045 EW007089 EW007184 EW007238 EW007355 EW007396

POLLUTION CONTROL

(6) EW006164 EW006893 EW006952 EW007050 EW007171 EW007222

*POLYCHLORINATED BIPHENYLS

(1) EW007201

*POLYELECTROLYTES

(1) EW006975

PONDS

(1) EW006907

*POSITION PAPERS

(1) EW007010

*POST SECONDARY EDUCATION

(127) EW002908 EW002963 EW003375 EW003375 EW003818 EW003967 EW005885
EW006266 EW006313 EW006315 EW006323 EW006339 EW006565 EW006601
EW006844 EW006871 EW006940 EW006941 EW006945 EW006946 EW006954 EW006955
EW006962 EW006965 EW006966 EW006968 EW006969 EW006970 EW006971 EW006975
EW006976 EW006977 EW006978 EW006979 EW006980 EW006981 EW006982 EW006983
EW006984 EW007030 EW007031 EW007045 EW007083 EW007090 EW007091 EW007093
EW007094 EW007095 EW007097 EW007098 EW007099 EW007100 EW007101 EW007102
EW007103 EW007105 EW007106 EW007108 EW007109 EW007111 EW007113 EW007114
EW007116 EW007117 EW007118 EW007119 EW007120 EW007121 EW007122 EW007123
EW007124 EW007125 EW007126 EW007127 EW007166 EW007167 EW007169 EW007170
EW007171 EW007172 EW007173 EW007182 EW007217 EW007218 EW007219 EW007220
EW007221 EW007222 EW007223 EW007225 EW007227 EW007228 EW007229 EW007230
EW007231 EW007238 EW007243 EW007262 EW007266 EW007283 EW007286 EW007288
EW007289 EW007291 EW007294 EW007295 EW007296 EW007297 EW007298 EW007335
EW007341 EW007353 EW007356 EW007357 EW007360 EW007361 EW007362 EW007363
EW007364 EW007365 EW007375 EW007383 EW007384 EW007389 EW007394 EW007395

*POSTSECONDARY EDUCATION

(3) EW006872 EW006972 EW007023

POST SECONDARY EDUCATION

(38) EW003968 EW006618 EW007029 EW007052 EW007053 EW007054 EW007055
EW007056 EW007057 EW007063 EW007087 EW007088 EW007104 EW007107 EW007110
EW007115 EW007146 EW007147 EW007148 EW007152 EW007158 EW007160 EW007162
EW007163 EW007164 EW007168 EW007281 EW007282 EW007284 EW007285 EW007287
EW007290 EW007292 EW007293 EW007299 EW007355 EW007358 EW007359

*POTABLE WATER

(2) EW006737 EW006739

POTABLE WATER

(4) EW006921 EW007208 EW007361 EW007362

*POWDERED ACTIVATED CARBON

(1) EW006921

*POWER PLANTS

(3) EW006135 EW006726 EW006941

*PRECIPITATION	(1)	EW006135							
*PRESSURE	(1)	EW007094							
*PRETREATMENT	(4)	EW006918	EW007010	EW007011	EW007027				
*PREVENTATIVE MAINTENANCE	(1)	EW006884							
*PRICING METHODS	(1)	EW007181							
*PRIMARY SEDIMENTATION	(1)	EW007218							
*PRIORITY POLLUTANTS	(2)	EW007011	EW007015						
PRIVATE AGENCIES	(1)	EW006809							
PROBLEMS	(1)	EW006164							
*PROBLEM SOLVING	(1)	EW007375							
PROBLEM SOLVING	(3)	EW003375	EW006888	EW007243					
PROCEDURES	(1)	EW007165							
*PROCESS CONTROL	(6)	EW006339	EW006963	EW006964	EW006973	EW007100	EW007357		
PROFESSIONAL ASSOCIATIONS	(1)	EW006809							
*PROFESSIONAL DEVELOPMENT	(1)	EW007365							
*PROFESSIONAL TRAINING	(1)	EW003375							
*PROGRAM DESCRIPTIONS	(3)	EW006599	EW007032	EW007214					
PROGRAM DESCRIPTIONS	(1)	EW006323							
*PROGRAM DESIGN	(1)	EW006618							
*PROGRAMED INSTRUCTION	(1)	EW006315							
PROGRAM EFFECTIVENESS	(1)	EW004117							
*PROGRAM EVALUATION	(3)	EW005885	EW006313	EW007278					
PROGRAM EVALUATION	(2)	EW004117	EW007165						
*PROGRAM IMPLEMENTATION	(1)	EW007214							
*PROGRAM REVIEWS	(1)	EW007178							
*PROJECT REPORTS	(1)	EW007278							
*PUBLIC ADMINISTRATION	(1)	EW005885							
PUBLIC AGENCIES	(1)	EW006809							
*PUBLIC HEALTH	(15)	EW004168	EW004169	EW006216	EW006384	EW006584	EW006585	EW006592	
		EW006593	EW006602	EW006910	EW007029	EW007102	EW007114	EW007115	EW007384
PUBLIC HEALTH	(15)	EW004140	EW004141	EW004142	EW004143	EW004144	EW006419	EW006601	
		EW006714	EW006952	EW007014	EW007196	EW007201	EW007379	EW007394	EW007395
*PUBLIC OPINION	(2)	EW006449	EW006859						

PUBLIC OPINION	(1)	EW004118							
*PUBLIC PARTICIPATION	(2)	EW003779	EW006872						
*PUBLIC POLICY	(1)	EW004116							
PUBLIC POLICY	(1)	EW003779							
*PUBLIC PROGRAMS	(1)	EW005885							
*PUBLIC RELATIONS	(1)	EW006599							
PUBLIC RELATIONS	(1)	EW007223							
PUBLIC SUPPORT	(1)	EW004118							
*PUMPING SAMPLERS	(1)	EW006874							
*PUMPING STATIONS	(1)	EW006217							
*PUMPS	(3)	EW006572	EW006581	EW006945					
PUMPS	(4)	EW006586	EW006713	EW006866	EW007231				
*PVC	(1)	EW007019							
*QUALITY CONTROL	(6)	EW006973	EW007026	EW007165	EW007178	EW007281	EW007282		
QUANTITATIVE ASSAYS	(1)	EW007196							
*RADIATION	(2)	EW007113	EW007394						
*RADIOACTIVE SUBSTANCES	(1)	EW003969							
RADIOACTIVE WASTES	(1)	EW007390							
RADIOACTIVITY	(1)	EW007026							
*RAIN	(1)	EW006135							
*RATE STRUCTURES	(1)	EW007181							
REAGENTS	(1)	EW007026							
*RECLAMATION	(2)	EW006908	EW007013						
RECLAMATION	(1)	EW006890							
*RECOMMENDATIONS	(5)	EW006164	EW006942	EW007084	EW007085	EW007165			
*RECORD KEEPING	(1)	EW001386							
*RECOVERY PROCESS	(1)	EW007392							
RECREATION	(3)	EW006951	EW007290	EW007413					
*RECREATIONAL FACILITIES	(1)	EW007290							
*RECYCLING	(7)	EW004168	EW006419	EW006566	EW006651	EW006714	EW006890	EW007385	
RECYCLING	(2)	EW006219	EW006880						
*REFERENCE MATERIALS	(4)	EW006461	EW006915	EW007183	EW007391				

REFERENCE MATERIALS	(1)	EW006618							
*REFERENCES	(1)	EW006976							
*REGIONAL PLANNING	(1)	EW006987							
*REGULATIONS	(14)	EW006135	EW006187	EW006384	EW006585	EW006592	EW006676	EW006764	
	EW006812	EW006846	EW006859	EW007011	EW007027	EW007201	EW007309		
REGULATIONS	(20)	EW006054	EW006219	EW006222	EW006422	EW006586	EW006599	EW006710	
	EW006722	EW006882	EW006888	EW006896	EW006942	EW007023	EW007029	EW007046	
	EW007051	EW007166	EW007222	EW007361	EW007362				
*REHABILITATION	(1)	EW007392							
REMEDIAL COURSES	(1)	EW004117							
*REMOTE SENSING	(1)	EW006875							
REMOTE SENSING	(1)	EW007035							
*REPORTS	(1)	EW006942							
*REQUIREMENTS	(1)	EW006969							
*RESEARCH	(26)	EW003818	EW004140	EW004141	EW004142	EW004144	EW006449	EW006631	
	EW006651	EW006756	EW006764	EW006855	EW006856	EW006857	EW006858	EW006860	
	EW006875	EW006881	EW006882	EW007033	EW007034	EW007042	EW007043	EW007047	
	EW007165	EW007179	EW007180						
RESEARCH	(6)	EW004139	EW004143	EW004168	EW006873	EW006874	EW006940		
*RESEARCH DESIGN	(1)	EW004118							
*RESEARCH METHODOLOGY	(1)	EW006727							
*RESEARCH NEEDS	(2)	EW006848	EW006923						
RESEARCH NEEDS	(1)	EW006941							
*RESEARCH REPORTS	(19)	EW006859	EW006880	EW006916	EW006919	EW006920	EW006921	EW006922	
	EW006923	EW006975	EW007021	EW007032	EW007035	EW007036	EW007037	EW007038	
	EW007040	EW007041	EW007196	EW007392					
RESEARCH REPORTS	(8)	EW006618	EW006864	EW006893	EW006918	EW006952	EW007089	EW007203	
	EW007204								
*RESEARCH REVIEWS	(41)	EW006329	EW006702	EW006703	EW006704	EW006705	EW006706	EW006707	
	EW006708	EW006709	EW006710	EW006711	EW006712	EW006713	EW006714	EW006715	
	EW006716	EW006717	EW006718	EW006719	EW006721	EW006722	EW006723	EW006724	
	EW006725	EW006726	EW006727	EW006728	EW006729	EW006730	EW006731	EW006732	
	EW006734	EW006736	EW006737	EW006738	EW006739	EW006740	EW006890	EW006941	
	EW006967	EW007051							
RESEARCH REVIEWS	(3)	EW006733	EW006735	EW006741					
*RESERVOIRS	(2)	EW006722	EW007038						
RESERVOIRS	(2)	EW006734	EW007037						
*RESIDENTIAL UNITS	(1)	EW006952							
*RESIDUAL CHLORINE	(1)	EW006954							

RESIDUES	(1)	EW007167							
*RESOURCE MATERIALS	(1)	EW006809							
RESOURCE MATERIALS	(2)	EW003968	EW003969						
*RESOURCE PLANNING	(1)	EW006723							
*REUSE	(1)	EW005890							
REUSE	(1)	EW006800							
*RIGGING	(2)	EW007090	EW007356						
RISK	(1)	EW007051							
*RISK ASSESSMENT	(2)	EW006585	EW007651						
*RIVERS	(2)	EW000153	EW006868						
ROADS	(1)	EW006894							
*ROPES	(1)	EW007090							
*ROTATING BIOLOGICAL CONTACTORS	(1)	EW007012							
*RUNOFF	(1)	EW006893							
RUNOFF	(1)	EW007355							
*RURAL AREAS	(3)	EW004168	EW006572	EW006943					
RURAL AREAS	(5)	EW004118	EW006222	EW006710	EW006813	EW007295			
*SAFE DRINKING WATER ACT	(1)	EW007029							
SAFE DRINKING WATER ACT	(2)	EW007361	EW007362						
*SAFETY	(19)	EW002908	EW002963	EW006054	EW006135	EW006565	EW006591	EW006592	
		EW006593	EW006601	EW006602	EW006713	EW006717	EW006764	EW006902	EW006976
		EW007030	EW007101	EW007107	EW007183				
SAFETY	(10)	EW006384	EW006585	EW006955	EW007011	EW007086	EW007090	EW007220	
		EW007356	EW007357	EW007394					
*SAFETY EDUCATION	(1)	EW007183							
*SAFETY EQUIPMENT	(1)	EW006902							
SAFETY EQUIPMENT	(1)	EW007086							
*SALARIES	(1)	EW007049							
*SALINE WATER	(1)	EW007041							
*SALINITY	(1)	EW007041							
SALINITY	(1)	EW007026							
*SALMONELLA	(1)	EW006738							
*SALT	(1)	EW006894							
*SAMPLING	(13)	EW006565	EW006730	EW006731	EW006812	EW006874	EW006892	EW007013	

SAMPLING	EW007026 (11) EW007220	EW007172 EW006566 EW007360	EW007184 EW006729 EW007361	EW007208 EW007110 EW007362	EW007209 EW007118	EW007358 EW007123	EW007126	EW007167
*SAMPLING METHODS	(1)	EW006735						
*SAMPLING TECHNIQUES	(4)	EW006729	EW006733	EW006896	EW007031			
SAMPLING TECHNIQUES	(1)	EW007173						
*SAN DIEGO	(1)	EW007077						
SANITARY FACILITIES	(1)	EW007115						
*SANITARY SEWERS	(1)	EW006217						
SANITATION	(2)	EW006983	EW006984					
SCHOOL INDUSTRY RELATIONSHIP	(1)	EW004117						
SCIENCE CAREERS	(1)	EW007164						
SCIENCE CURRICULUM	(1)	EW007164						
*SCIENCE EDUCATION	(3)	EW007120	EW007164	EW007359				
SCIENCE EDUCATION	(47) EW007108 EW007117 EW007126 EW007285 EW007293	EW006809 EW007109 EW007118 EW007127 EW007286 EW007294	EW007102 EW007110 EW007119 EW007162 EW007287 EW007295	EW007103 EW007111 EW007121 EW007202 EW007288 EW007296	EW007104 EW007113 EW007122 EW007281 EW007289 EW007298	EW007105 EW007114 EW007123 EW007282 EW007290 EW007299	EW007106 EW007115 EW007124 EW007283 EW007291 EW007358	EW007107 EW007116 EW007125 EW007284 EW007292 EW007365
*SCIENCE EDUCATION	(1)	EW007168						
*SCIENCE EQUIPMENT	(2)	EW007105	EW007120					
SCIENCE EQUIPMENT	(3)	EW003818	EW003969	EW007162				
SCIENCE LABORATORIES	(1)	EW007162						
*SCIENTIFIC LITERACY	(1)	EW007164						
SCIENTIFIC RESEARCH	(1)	EW007162						
*SEA COASTS	(1)	EW006676						
*SEALS	(1)	EW007019						
*SECONDARY EDUCATION	(1)	EW007214						
SECONDARY EDUCATION	(1)	EW007147						
*SEDIMENTATION	(4)	EW006266	EW006873	EW007197	EW007218			
*SEDIMENTS	(3)	EW003969	EW006729	EW006868				
SELF PACED INSTRUCTION	(11) EW007098	EW007090 EW007099	EW007091 EW007100	EW007092 EW007101	EW007093	EW007094	EW007095	EW007097
SEPTIC SYSTEMS	(1)	EW007295						
*SEPTIC TANKS	(2)	EW006710	EW006952					

*SETTLING	(1)	EW006214							
*SEWAGE	(3)	EW006631	EW006964	EW007037					
SEWAGE	(7)	EW004169	EW006864	EW006903	EW006915	EW007038	EW007042	EW007353	
*SEWAGE SYSTEMS	(1)	EW006952							
*SEWER OVERFLOW	(2)	EW006586	EW006716						
*SEWERS	(6)	EW006586	EW006713	EW006885	EW006893	EW006943	EW007235		
SEWERS	(5)	EW006217	EW006716	EW006904	EW007174	EW007196			
*SEWER SYSTEMS	(1)	EW007235							
SEWER SYSTEMS	(1)	EW006902							
*SEWER WORKERS	(1)	EW006902							
SHARED SERVICES	(1)	EW007156							
*SHELLFISH INDUSTRY	(1)	EW007036							
*SIMULATIONS	(1)	EW006875							
SITE EVALUATION	(2)	EW006943	EW007197						
*SKILL DEVELOPMENT	(2)	EW007090	EW007091						
SKILL DEVELOPMENT	(9)	EW007092	EW007093	EW007094	EW007095	EW007097	EW007098	EW007099	
	EW007100	EW007101							
SLIDES	(1)	EW007182							
*SLUDGE	(14)	EW006278	EW006339	EW006705	EW006709	EW006717	EW006741	EW006905	
	EW006906	EW006973	EW006982	EW007017	EW007046	EW007219	EW007335		
SLUDGE	(8)	EW006219	EW006963	EW006965	EW007011	EW007021	EW007042	EW007310	
	EW007353								
*SLUDGE CHARACTERISTICS	(1)	EW006709							
SLUDGE CHARACTERISTICS	(1)	EW006705							
*SLUDGE DISPOSAL	(2)	EW006709	EW007310						
*SLUDGE TREATMENT	(3)	EW006705	EW006709	EW007310					
*SMALL WATER SYSTEMS	(1)	EW006222							
SMOKE	(1)	EW007222							
SNOW	(1)	EW007203							
*SNOW REMOVAL	(1)	EW006894							
*SOCIAL FACTORS	(1)	EW006618							
*SOCIAL SCIENCES	(1)	EW006860							
*SOCIAL STUDIES	(2)	EW007293	EW007294						
SOCIAL STUDIES	(1)	EW007283							

*SOCIAL SYSTEMS	(1)	EW004118							
*SODIUM	(1)	EW006909							
*SOFTWARE	(1)	EW007341							
SOFTWARE	(1)	EW007342							
*SOIL	(1)	EW006266							
*SOILS	(2)	EW006908	EW006909						
SOILS	(1)	EW006952							
SOIL SCIENCE	(2)	EW004168	EW007014						
*SOIL STUDIES	(1)	EW007204							
SOIL STUDIES	(1)	EW007041							
*SOIL VIRUSES	(1)	EW007014							
*SOLIDS	(2)	EW006981	EW007098						
SOLIDS	(1)	EW006965							
*SOLIDS HANDLING	(1)	EW006962							
SOLID WASTE	(1)	EW007042							
*SOLID WASTE MANAGEMENT	(1)	EW006703							
*SOLID WASTES	(4)	EW006651	EW006676	EW006719	EW006946				
SOLID WASTES	(1)	EW007390							
*SOLUTES	(1)	EW006723							
SPECTROGRAPHS	(1)	EW007182							
*SPECTROMETRY	(1)	EW007203							
SPECTROSCOPY	(1)	EW007168							
*SPILL PREVENTION	(1)	EW007238							
*SPILLS	(1)	EW006602							
*SPILL TECHNOLOGY	(2)	EW006582	EW006583						
STABILIZATION	(1)	EW006709							
*STABILIZATION PONDS	(1)	EW007220							
STAFFING	(2)	EW007084	EW007085						
*STANDARDS	(14)	EW004138	EW004139	EW004140	EW004169	EW006054	EW006135	EW006167	
		EW006599	EW006764	EW006859	EW007010	EW007026	EW007206	EW007413	
STANDARDS	(10)	EW006722	EW006812	EW006848	EW006882	EW006888	EW006896	EW006916	
		EW007023	EW007101	EW007223					
*START UP	(1)	EW001386							

START-UP	(1)	EW007220							
*STATE AGENCIES	(1)	EW007206							
STATE GOVERNMENT	(1)	EW006942							
*STATE-OF-THE-ART REVIEWS	(2)	EW007342	EW007389						
*STATE PROGRAMS	(5)	EW006845	EW006846	EW007084	EW007085	EW007278			
STATE PROGRAMS	(1)	EW007032							
*STATISTICS	(4)	EW006920	EW007051	EW007171	EW007360				
STATUTES	(2)	EW007023	EW007032						
*STORAGE	(1)	EW007207							
STORAGE FACILITIES	(1)	EW006884							
*STORM SEWERS	(2)	EW006217	EW006716						
*STORMWATER	(3)	EW007173	EW007174	EW007196					
STORMWATER	(1)	EW007296							
*STRATEGIES	(1)	EW006872							
*STREAMS	(3)	EW006722	EW006874	EW007038					
STREAMS	(3)	EW006734	EW007023	EW007037					
*STRIPPING	(1)	EW006907							
STUDENT ATTITUDES	(1)	EW007158							
*STUDENT CHARACTERISTICS	(1)	EW007158							
*STUDY GUIDES	(3)	EW006971	EW006972	EW007097					
STUDY GUIDES	(11)	EW007090	EW007091	EW007092	EW007093	EW007094	EW007095	EW007098	
		EW007099	EW007100	EW007101	EW007171				
*SUBSURFACE POLLUTION	(1)	EW007309							
*SULFUR	(1)	EW006135							
*SUPERVISION	(2)	EW003375	EW003375						
*SUBURBAN AREAS	(1)	EW004169							
*SURFACE RUNOFF	(4)	EW006716	EW006893	EW007173	EW007196				
SURFACE RUNOFF	(3)	EW006217	EW006873	EW007174					
SURFACE WATER	(1)	EW007045							
SURFACTANTS	(1)	EW006966							
*SURVEYS	(2)	EW006449	EW007049						
SURVEYS	(2)	EW004118	EW007158						
*SUSPENDED SOLIDS	(2)	EW006873	EW007013						

SUSPENDED SOLIDS	(3)	EW006278	EW006703	EW006874					
*SWIMMING POOLS	(1)	EW004144							
SWIMMING POOLS	(1)	EW006566							
*SYMBOLS	(1)	EW007231							
*SYMPOSIA	(5)	EW007381	EW007385	EW007392	EW007395	EW007396			
SYMPOSIA	(1)	EW007044							
*SYNTHETIC ADSORBENTS	(1)	EW006919							
SYNTHETIC ADSORBENTS	(1)	EW006920							
*SYSTEMS ANALYSIS	(1)	EW007341							
*SYSTEMS APPROACH	(2)	EW007053	EW007155						
SYSTEMS APPROACH	(1)	EW007054							
SYSTEMS DEVELOPMENT	(1)	EW007053							
*TABLES (DATA)	(1)	EW007121							
*TANKS	(4)	EW006884	EW007174	EW007207	EW007309				
TANKS	(2)	EW007229	EW007231						
*TANKS (SETTLING)	(1)	EW006214							
TASK ANALYSIS	(1)	EW004117							
TEACHER EVALUATION	(1)	EW004117							
TEACHER ROLE	(1)	EW007155							
*TEACHING METHODS	(1)	EW007052							
*TEACHING GUIDES	(25)	EW003375	EW003375	EW005885	EW006315	EW006954	EW006962	EW006966	
		EW006968	EW006969	EW006976	EW006977	EW006978	EW006979	EW006980	EW006981
		EW006982	EW007171	EW007227	EW007238	EW007266	EW007281	EW007353	EW007356
		EW007357	EW007361						
TEACHING GUIDES	(1)	EW007087							
*TEACHING METHODS	(1)	EW007054							
TEACHING METHODS	(8)	EW007055	EW007122	EW007146	EW007147	EW007148	EW007153	EW007155	
		EW007158							
TEACHING PROGRAMS	(1)	EW006980							
TEACHING TECHNIQUES	(1)	EW006315							
*TECHNICAL ASSISTANCE	(1)	EW006844							
*TECHNICAL EDUCATION	(25)	EW007102	EW007103	EW007104	EW007105	EW007106	EW007107	EW007108	
		EW007109	EW007110	EW007111	EW007113	EW007114	EW007115	EW007116	EW007117
		EW007118	EW007119	EW007121	EW007122	EW007123	EW007124	EW007125	EW007126
		EW007127	EW007363						
TECHNICAL EDUCATION	(17)	EW007063	EW007090	EW007091	EW007092	EW007093	EW007094	EW007095	

	EW007097	EW007098	EW007099	EW007100	EW007101	EW007120	EW007214	EW007281
	EW007282	EW007365						
*TECHNICAL REPORTS	(1)	EW007197						
*TECHNOLOGICAL ADVANCEMENT	(1)	EW007288						
TECHNOLOGICAL ADVANCEMENT	(2)	EW007164	EW007202					
*TECHNOLOGICAL ADVANCEMENTS	(2)	EW006875	EW007211					
TECHNOLOGICAL ADVANCEMENTS	(1)	EW007414						
*TECHNOLOGY	(6)	EW004138	EW006054	EW006848	EW007027	EW007291	EW007295	
TECHNOLOGY	(9)	EW004144	EW006883	EW006965	EW007153	EW007164	EW007288	EW007289
	EW007341	EW007342						
TELECOMMUNICATIONS	(1)	EW007052						
*TELECONFERENCING	(2)	EW007055	EW007152					
*TELECOURSES	(2)	EW007157	EW007158					
TELECOURSES	(1)	EW007052						
*TELEPHONE COMMUNICATIONS SYSTEMS	(1)	EW007152						
TELEVISION	(1)	EW007152						
*TEMPERATURE	(2)	EW006977	EW007099					
TEMPERATURE	(1)	EW007117						
*TESTING	(4)	EW006844	EW007101	EW007172	EW007208			
TESTING	(11)	EW004117	EW006845	EW006940	EW006945	EW006955	EW006968	EW007167
	EW007219	EW007361	EW007362	EW007385				
*TESTS	(1)	EW007079						
TESTS	(1)	EW007088						
*TEXAS	(1)	EW006906						
*TEXTBOOKS	(2)	EW006618	EW006940					
TEXTBOOKS	(1)	EW006941						
*TEXTILE INDUSTRY	(1)	EW006651						
*THERMAL ENVIRONMENT	(1)	EW007117						
*THERMAL POLLUTION	(4)	EW006725	EW006726	EW006855	EW006856			
*THERMODYNAMICS	(1)	EW006567						
TITRATION	(1)	EW007119						
*TOXIC CHEMICALS	(1)	EW006593						
*TOXIC CASES	(1)	EW007030						
*TOXICITY	(10)	EW006566	EW006582	EW006591	EW006592	EW006601	EW006728	EW006730

TOXICITY	EW006733 (5)	EW006941 EW006584	EW007201 EW006732	EW007011	EW007395	EW007396		
TOXICOLOGY	(1)	EW007396						
*TOXIC SUBSTANCES	(11) EW006732	EW006135 EW007043	EW006374 EW007395	EW006384 EW007396	EW006601	EW006602	EW006653	EW006728
TOXIC SUBSTANCES	(5)	EW006915	EW007021	EW007051	EW007379	EW007384		
*TOXIC WASTES	(1)	EW006591						
*TRACE METALS	(1)	EW007379						
*TRADE AND INDUSTRIAL EDUCATION	(1)	EW004117						
*TRAINING	(15) EW006846	EW006223 EW006871	EW006313 EW007047	EW006315 EW007084	EW006323 EW007085	EW006422 EW007146	EW006844 EW007148	EW006845 EW007278
TRAINING	(1)	EW001386						
*TRAINING GUIDES	(1)	EW006313						
*TRAINING MANUALS	(6)	EW006955	EW006965	EW007166	EW007167	EW007360	EW007362	
TRAINING METHODS	(2)	EW007146	EW007148					
*TRAINING NEEDS	(1)	EW006422						
*TRAINING OBJECTIVES	(1)	EW007148						
*TRAINING PROGRAMS	(18) EW007092 EW007101	EW006601 EW007093 EW007356	EW006602 EW007094 EW007357	EW006871 EW007095	EW006973 EW007097	EW006984 EW007098	EW007090 EW007099	EW007091 EW007100
TRAINING PROGRAMS	(13) EW006977	EW006315 EW006978	EW006968 EW006979	EW006969 EW006981	EW006970 EW006982	EW006971 EW006983	EW006972	EW006976
*TRANSPORTATION	(1)	EW006135						
TRANSPORTATION	(1)	EW006384						
*TRICKLING FILTERS	(3)	EW006741	EW007012	EW007218				
*TRISALOMETHANES	(7)	EW004140	EW004141	EW004142	EW006916	EW006921	EW006922	EW007031
TRISALOMETHANES	(1)	EW006712						
*TROUBLE SHOOTING	(1)	EW006278						
*TROUBLESHOOTING	(7)	EW006223	EW006963	EW006983	EW006984	EW007230	EW007243	EW007335
TROUBLESHOOTING	(3)	EW006962	EW007101	EW007218				
*TURBIDITY	(1)	EW006954						
TURBIDITY	(3)	EW006873	EW006979	EW007074				
ULTRAVIOLET LIGHT	(1)	EW006591						
*UNDERGROUND STORAGE	(1)	EW007174						
*UNITED KINGDOM	(1)	EW006867						

*UNITED NATIONS ENVIRONMENT PROGRAM	(1)	EW007020							
*UNITED STATES	(3)	EW006942	EW007020	EW007044					
*UPGRADING	(1)	EW007078							
UPGRADING	(1)	EW007353							
*URBAN AREAS	(7)	EW006167	EW006864	EW006893	EW006983	EW007196	EW007296	EW007355	
URBAN AREAS	(6)	EW004118	EW006903	EW006987	EW007173	EW007197	EW007291		
*URBAN ENVIRONMENT	(1)	EW007044							
URBAN ENVIRONMENT	(1)	EW004116							
*URBANIZATION	(2)	EW004116	EW006951						
URBANIZATION	(2)	EW006813	EW006864						
URBAN PROBLEMS	(1)	EW006716							
*USER CHARGES	(1)	EW007181							
*UTAH	(1)	EW007206							
*UTILITIES	(12)	EW004138	EW004139	EW004169	EW006212	EW006222	EW006224	EW006844	
		EW006845	EW006983	EW006984	EW007181	EW007308			
UTILITIES	(5)	EW004142	EW004143	EW006218	EW006985	EW007309			
*VACUUM FILTERS	(1)	EW006906							
*VALUE ENGINEERING	(1)	EW006220							
*VALVES	(1)	EW007100							
VALVES	(2)	EW007229	EW007231						
*VAULTS	(1)	EW007030							
VEGETATION	(1)	EW006894							
VELOCITY RECORDERS	(1)	EW006885							
*VENTILATION	(1)	EW007116							
VENTILATION	(1)	EW007125							
*VIDEODISC RECORDINGS	(1)	EW007153							
*VIRUSES	(1)	EW006740							
VIRUSES	(1)	EW007385							
*VISIBLE EMISSIONS	(1)	EW007222							
*VOCATIONAL EDUCATION	(26)	EW007087	EW007088	EW007102	EW007103	EW007104	EW007105	EW007106	
		EW007107	EW007108	EW007109	EW007110	EW007111	EW007113	EW007114	EW007115
		EW007116	EW007117	EW007118	EW007119	EW007121	EW007122	EW007123	EW007124
		EW007125	EW007126	EW007127					
VOCATIONAL EDUCATION	(2)	EW007063	EW007120						

VOCATIONAL FOLLOWUP
*WAGES

(1) EW004117
(1) EW007049

WASTE COLLECTION

(1) EW006719

*WASTE DISPOSAL

(33) EW004116 EW004168 EW004169 EW006374 EW006384 EW006592 EW006593
EW006676 EW006864 EW006880 EW006943 EW006946 EW006952 EW006958
EW007014 EW007019 EW007036 EW007087 EW007088 EW007223 EW007284
EW007285 EW007287 EW007288 EW007289 EW00729C EW007291 EW007295 EW007297
EW007299 EW007381

WASTE DISPOSAL

(13) EW003375 EW004117 EW006591 EW006631 EW006882 EW006890 EW006905
EW006906 EW006908 EW006915 EW007021 EW007086 EW007363

WASTES

(3) EW007087 EW007088 EW007381

*WASTE TREATMENT

(2) EW006719 EW007036

WASTE TREATMENT

(1) EW006880

*WASTEWATER

(7) EW006732 EW006892 EW006893 EW006980 EW007014 EW007172 EW007235

WASTEWATER

(1) EW006890

*WASTEWATER COLLECTION

(9) EW006217 EW006586 EW006711 EW006713 EW006716 EW006885 EW007174
EW007196 EW007235

WASTEWATER COLLECTION

(1) EW006893

WASTEWATER DISPOSAL

(1) EW006717

WASTEWATER FLOW

(1) EW006812

*WASTEWATER INJECTION

(1) EW006958

*WASTEWATER PERSONNEL

(1) EW007049

*WASTEWATER PRETREATMENT

(1) EW007027

*WASTEWATER TREATMENT

(122) EW001386 EW003375 EW003375 EW004168 EW004169 EW006164 EW006187
EW006215 EW006218 EW006219 EW006220 EW006221 EW006223 EW006278
EW006339 EW006419 EW006420 EW006566 EW006584 EW006585 EW006586 EW006703
EW006704 EW006705 EW006706 EW006707 EW006708 EW006709 EW006710 EW006711
EW006712 EW006713 EW006714 EW006715 EW006716 EW006717 EW006718 EW006740
EW006741 EW006756 EW006812 EW006844 EW006845 EW006846 EW006871 EW006881
EW006891 EW006903 EW006904 EW006905 EW006906 EW006907 EW006908 EW006909
EW006910 EW006915 EW006943 EW006952 EW006958 EW006963 EW006964 EW006965
EW006967 EW006970 EW006971 EW006972 EW006973 EW006975 EW006976 EW006977
EW006978 EW006979 EW006981 EW006982 EW006983 EW006984 EW006986 EW007010
EW007011 EW007012 EW007013 EW007014 EW007015 EW007016 EW007017 EW007018
EW007021 EW007027 EW007037 EW007038 EW007046 EW007047 EW007050 EW007057
EW007088 EW007089 EW007169 EW007170 EW007183 EW007214 EW007217 EW007218
EW007219 EW007220 EW007221 EW007225 EW007243 EW007262 EW007284 EW007285
EW007287 EW007288 EW007289 EW007291 EW007294 EW007295 EW007335 EW007353
EW007363 EW007385 EW007414

WASTEWATER TREATMENT

(9) EW003818 EW004117 EW006888 EW007049 EW007084 EW007085 EW007266
EW007296 EW007297

*WASTEWATER TREATMENT PLANTS

(4) EW006962 EW006969 EW007283 EW007297

WASTEWATER TREATMENT PLANTS

(3) EW007285 EW007287 EW007291

*WATER	(2)	EW006855	EW007026					
*WATER ANALYSIS	(5)	EW006422	EW006571	EW006702	EW007203	EW007204		
WATER ANALYSIS	(2)	EW006941	EW007166					
WATER CHARACTERISTICS	(1)	EW006702						
*WATER CONSERVATION	(4)	EW006889	EW007039	EW007307	EW007308			
*WATER DEMAND	(1)	EW006867						
*WATER DISTRIBUTION	(9)	EW006216	EW006866	EW006987	EW006988	EW006989	EW006990	EW007207
	EW007307	EW007308						
*WATER (DRINKING)	(1)	EW006572						
*WATER LABORATORY CERTIFICATION	(1)	EW006422						
*WATER LOSS	(1)	EW007308						
WATER LOSS	(1)	EW007307						
*WATER MAINS	(1)	EW004138						
WATER METERS	(1)	EW004139						
*WATER PIPES	(3)	EW006216	EW007179	EW007180				
*WATER POLLUTION	(23)	EW006329	EW006571	EW006720	EW006721	EW006733	EW006736	EW006737
	EW006738	EW006739	EW006864	EW006868	EW006882	EW006953	EW007089	EW007118
	EW007119	EW007168	EW007286	EW007292	EW007296	EW007358	EW007359	EW007363
WATER POLLUTION	(11)	EW006735	EW006740	EW006741	EW007086	EW007087	EW007088	EW007169
	EW007170	EW007281	EW007282	EW007383				
*WATER POLLUTION CONTROL	(35)	EW000153	EW002908	EW003779	EW004116	EW004144	EW004168	EW004169
	EW006054	EW006137	EW006213	EW006215	EW006581	EW006583	EW006651	EW006653
	EW006723	EW006724	EW006725	EW006726	EW006727	EW006728	EW006729	EW006730
	EW006731	EW006734	EW006812	EW006873	EW006976	EW006977	EW006978	EW006979
	EW006981	EW006982	EW007042	EW007043				
WATER POLLUTION CONTROL	(10)	EW003375	EW003818	EW003969	EW004140	EW004141	EW004142	EW004143
	EW006565	EW006722	EW006732					
*WATER POLLUTION CONTROL FEDERATION	(2)	EW007010	EW007047					
*WATER PROJECTS	(1)	EW007178						
*WATER QUALITY	(89)	EW000153	EW004140	EW004141	EW006054	EW006137	EW006167	EW006214
	EW006215	EW006216	EW006218	EW006219	EW006221	EW006266	EW006278	EW006419
	EW006422	EW006566	EW006567	EW006571	EW006582	EW006583	EW006584	EW006585
	EW006591	EW006651	EW006653	EW006676	EW006719	EW006720	EW006722	EW006732
	EW006733	EW006735	EW006756	EW006812	EW006846	EW006848	EW006853	EW006856
	EW006857	EW006858	EW006859	EW006874	EW006880	EW006882	EW006883	EW006888
	EW006903	EW006910	EW006916	EW006917	EW006921	EW006922	EW006923	EW006946
	EW006966	EW006968	EW006995	EW007019	EW007021	EW007026	EW007029	EW007031
	EW007032	EW007037	EW007038	EW007041	EW007042	EW007043	EW007044	EW007045
	EW007086	EW007166	EW007167	EW007168	EW007172	EW007184	EW007206	EW007208
	EW007209	EW007266	EW007296	EW007358	EW007359	EW007361	EW007362	EW007364
	EW007379	EW007413						
WATER QUALITY	(21)	EW002963	EW003969	EW006727	EW006740	EW006864	EW006892	EW006896
	EW006908	EW006909	EW006918	EW006919	EW006920	EW006954	EW006955	EW007014

*WATER QUALITY ANALYSIS	EW007015 (2)	EW007205 EW007281	EW007210 EW007282	EW007292	EW007385	EW007414		
*WATER RATES	(1)	EW007181						
WATER RECHARGE	(1)	EW006723						
*WATER RESOURCES	(47)	EW003779 EW006723 EW006896 EW007044 EW007266 EW007294	EW004116 EW006848 EW006985 EW007084 EW007281 EW007296	EW004117 EW006860 EW006986 EW007085 EW007283 EW007297	EW006213 EW006864 EW006987 EW007086 EW007285 EW007355	EW006218 EW006873 EW007032 EW007115 EW007286 EW007363	EW006222 EW006882 EW007039 EW007206 EW007287 EW007384	EW006266 EW006894 EW007041 EW007211 EW007292 EW007413
WATER RESOURCES	(34)	EW002963 EW006946 EW007078 EW007289 EW007385	EW003818 EW006988 EW007118 EW007290 EW007390	EW004118 EW006990 EW007169 EW007293 EW007391	EW006874 EW007074 EW007170 EW007295 EW007385	EW006888 EW007075 EW007178 EW007299 EW007385	EW006910 EW007076 EW007284 EW007358 EW007359	EW006916 EW007077 EW007288 EW007359 EW007359
*WATER REUSE	(5)	EW006419	EW006566	EW006714	EW006715	EW007385		
WATER REUSE	(2)	EW006717	EW007384					
WATER RIGHTS	(1)	EW006951						
*WATER RUNOFF	(1)	EW006716						
*WATER SHEDS	(1)	EW006873						
*WATERSHEDS	(1)	EW007023						
*WATER STORAGE	(3)	EW006884	EW007174	EW007389				
*WATER SUPPLY	(32)	EW004138 EW006214 EW006572 EW006889 EW007207	EW004139 EW006215 EW006584 EW006940 EW006985	EW004140 EW006210 EW006653 EW006987 EW006990	EW004141 EW006219 EW006848 EW006990 EW007029	EW004142 EW006221 EW006867 EW007029 EW007041	EW004143 EW006222 EW006871 EW007041 EW007205	EW006213 EW006266 EW006883 EW007205 EW007205
WATER SUPPLY	(3)	EW006212	EW006860	EW007413				
*WATER TREATMENT	(56)	EW002908 EW006218 EW006572 EW006915 EW006923 EW007074 EW007209 EW007414	EW003375 EW006222 EW006756 EW006917 EW006954 EW007075 EW007210 EW007211	EW003375 EW006224 EW006844 EW006918 EW006960 EW007077 EW007221 EW007221	EW004144 EW006419 EW006845 EW006919 EW006975 EW007078 EW007225 EW007307	EW006137 EW006566 EW006846 EW006920 EW007021 EW007205 EW007307 EW007310	EW006212 EW006567 EW006871 EW006921 EW007029 EW007206 EW007310 EW007385	EW006214 EW006571 EW006803 EW006922 EW007041 EW007208 EW007385 EW007385
WATER TREATMENT	(6)	EW003818	EW006955	EW006987	EW007026	EW007281	EW007282	
*WATER USE	(5)	EW006813	EW006889	EW006890	EW006986	EW007039		
WATER USE	(2)	EW006860	EW007181					
*WATER WELLS	(2)	EW006213	EW006940					
WATER WELLS	(1)	EW006572						
*WEIGH	(1)	EW007095						

*WEIRS	(1)	EW007262							
WELLS	(1)	EW006894							
*WETLANDS	(2)	EW006676	EW006891						
WILDLIFE	(1)	EW006809							
*WORK ATTITUDES	(1)	EW007127							
WORKBOOKS	(1)	EW007360							
*WORK ENVIRONMENT	(5)	EW007106	EW007107	EW007109	EW007110	EW007111			
WORK ENVIRONMENT	(8)	EW007108	EW007113	EW007116	EW007117	EW007123	EW007125	EW007126	
		EW007183							
WORKSHEETS	(1)	EW006315							
*WORKSHOPS	(1)	EW006943							
WORKSHOPS	(2)	EW003779	EW007278						
*WORLD PROBLEMS	(1)	EW006882							
*ZETA POTENTIAL	(1)	EW007076							
ZONING	(1)	EW007023							
*ZOOLOGY	(1)	EW006731							
ZOOLOGY	(1)	EW006730							
*109(B) PROGRAMS	(1)	EW007278							
*205(C) PROGRAMS	(2)	EW007084	EW007085						